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## 1 Executive Summary

<b>Name of the unit</b>	:	<b>M/s. Gujarat Fluorochemicals Limited</b>
<b>Location of the factory</b>	:	D-2/CH-173 & CH-222, Dahej GIDC-2, Village: Galenda, Taluka: Vagra, District: Bharuch, Gujarat
<b>Promoter of the unit</b>	:	<b>M/s. Gujarat Fluorochemicals Limited</b>
<b>Telephone number</b>	:	+917283888431
<b>Fax number</b>	:	--
<b>Contact Information</b>	:	<b>Mr.Manoj Kamliya - Senior Vice President</b> Plot No. D-2/CH/173 & 222, GIDC Industrial Estate, Dahej-II, Village-Jolva, Taluka-Vagra, District- Bharuch, Gujarat Mob. No.- 7283888431
<b>Category of industry</b>	:	It may be noted that our project falls under clause no. 5(f)& 1(d) of category "B" as stated in the EIA Notification, 2006 and hence Environmental Clearance is obligatory and required to be obtained as a Category "B" project from SEAC, Gujarat.
<b>Location</b>	:	D-2/CH-173 & CH-222, Dahej GIDC-2, Village: Galenda, Taluka: Vagra, District: Bharuch, Gujarat
<b>Production details</b>	:	Expansion EC
<b>Cost of the project</b>	:	Rs.1100 Crores
<b>Land area</b>	:	464145.25 sq. m(46.4145 hectare)
<b>Source of water</b>	:	G.I.D.C., Dahej
<b>Source of power</b>	:	DGVCL and Captive Power Plant

## 2. Introduction of Project

### 1.1 Identification of project and project proponent

M/s. Gujarat Fluorochemicals Ltd. located at D-2/CH-173 & CH-222, Dahej GIDC-2, Village: Galenda, Taluka: Vagra, District: Bharuch, Gujarat intends to manufacture Fluoropolymers, Fluoro Refrigerants, Chloromethanes, Chloro Alkali and related products, installation of Steam-Boiler power plant for 4.75MW.

The company consists of following promoters:

- Mr.DevendraKumarSiddhomalJain-Chairmanofthecompany.Heisa graduate in History (Hons.) from St. Stephens College, Delhi, possesses over55yearsofrichexperienceinbusinessmanagementandinternational trade.
- Mr. VivekKumar DevendraJain- Managing Director of the company. He isagraduateofCommercefromSt.StephensCollege,Delhiandalsohasa post graduate degree in Business Administration from the Indian Institute of Management Ahmedabad. He has over 34 years of rich business experienceinsettingupandmanagingseveralbusinesses.
- Mr. PavanKumar Jain- Director of the company. He is a Chemical Engineer from Indian Institute of Technology, New Delhi, with over 38 yearsofexperienceofhandlingseveraldiversebusinesses.
- Mr.ShailendraD.Swarup-Directorofthecompany.Heisalawgraduate and a Senior Advocate. He is practicing in the High Court and Supreme Court of India, at New Delhi. He has around 44 years of experience in handling various legalmatters.
- Ms. VanitaBhargava- She is a Commerce and Law graduate of Delhi University and partner in the Dispute Resolution Group of Khaitan& Co, New Delhi. She has 17 years' of experience as practicing advocate at Supreme Court, High Court, Company Law Board, National Green Tribunal, Mining Tribunal, Consumer Forums and its Appellate Authorities.
- Mr.DineshKumarSachdeva-WholeTimeDirectorofthecompany.Heis B. Tech (Chemical Engineering) from the Indian Institute of Technology, Kharagpur, and has over 41 years of experience in the technical field of various chemical/ processplants.
- Mr. M Sanath Kumar Muppirala - Mr. SanathkumarMuppirala has completed his Bachelors in Chemical Engineering from S.V. University, Tirupati in 1983. He is Chemical Engineer of SV University, Tirupati and has over 33 years' of experience in Manufacturing, Strategic planning and commissioning of Petrochemical Plants. His last assignment was with Haldia Petrochemicals Limited as Head of Manufacturing. Prior to this, he was associated with various Companies like ONGC Petro Additions Limited, Reliance Industries Limited.
- Mr. Chandra Prakash Jain-Shri Chandra Prakash Jain is a Fellow Chartered Accountant, Law graduate and holds Advance Diploma in Management. He was former Chairman and Managing Director of NTPC Limited. For the period 2003-05, he had been the Chairman of the SCOPE- Standing Conference of Public Enterprises - the apex organization of Central Public Sector Enterprises (CPSEs) in INDIA. He was also the Chairman of the 'Global Studies Committee' of World Energy Council

London and the Member of its Officers Council for the 6-year term up to September, 2010. He was past member of Standing Technical Advisory Committee of Reserve Bank of India and also Member of the 'Ad hoc Group of Experts on Empowerment of CPSEs' constituted by the Government of India. He headed the CII's (Confederation of Indian Industries) 'National Committee on Energy'. Acclaimed widely for his vision across the spectrum of industry and business, he was awarded Ernst & Young's 'Entrepreneur of the Year - Manager Award 2005' and SCOPE's Award for the year 2003-04 for 'Excellence and Outstanding Contribution to the Public Sector Management-Individual Category'. Presently, he is an Independent Director on Board of various reputed companies.

- Mr. Om Prakash Lohia- Director of the company. He is a commerce graduate from Kolkata University and after graduation, joined the family textile business, which gave him management exposure in all disciplines of business management. He is also Chairman and Managing Director of Indo Rama Synthetics (India) Limited.
- Mr. Deepak Asher- Director of the company. He is graduated in Commerce & Law, and is a Chartered Accountant and a Cost Accountant by profession. He has been associated with the Inox Group for almost twenty five years now, in different capacities.
- Mr. Shanti Prasad Jain- Director of the company. He is graduated in Commerce & Law, and is a Chartered Accountant and a Cost Accountant by profession. He has been associated with the Inox Group for almost twenty five years now, in different capacities.
- Mr. Rajagopalan Doraiswami- He has done his Master of Science in Physics and joined Indian Administrative Services in the year 1974. He has retired from the Government Service.

## 1.2 Brief description of nature of project

Gujarat Fluorochemicals Limited is a public limited company listed on both the Bombay Stock Exchange and the National Stock Exchange of India. We represent the interests of close to 10,000 shareholders across the country.

GFL intends to manufacture Fluoropolymers, Fluoro Refrigerants, Chloromethanes Chloro Alkali and related products, Installation of Steam-Boiler and installation of Coal base power plant for 4.75 MW.

The management is engaged in manufacturing activities since last long time and has a wide experience in the similar field.

## 1.3 Need for the project and its importance to country and or region

In view of the market demand, the company is proposed to manufacture the listed products. Various products have export potential and will help in own economy by generating foreign exchange and also will increase employment opportunities in the region. For consideration of sustainable development, environmental friendly process and advanced technology will be adopted.

#### **1.4 Demand supply gap**

The industry has expertise in manufacturing various products. However, no significant gap will be there. The unit will be able to supply according to the captive demand of the product.

#### **1.5 Imports vs. indigenous production**

The products which will be manufactured in said premises will be of international standards, which will have acceptability in the export as well as domestic markets.

#### **1.6 Export possibility**

The products envisaged as captive product at present in the said complex will be of international standards and have potential to sale out as product for feed stock of many industries who are in the business of Fluro Specialty business, agro business and pharmacy business and compete with the industrial majors across the globe as well as will be able to service the domestic markets.

#### **1.7 Domestic /export market**

The products in the said premises will be of international standards and compete with the industrial majors across the globe as well as will be able to service the Domestic market.

#### **1.8 Employment generation**

Total 1000 nos. of workers including skilled and unskilled workers will be employed by the unit. Due to proposed activities, employment opportunity will be generated and hence employment will be provided through contract as well as permanent to the local or surrounding people.

### **2 Project Description**

#### **2.1 Type of the project:**

FluoroSpeciality Product/Chloralkali /Synthetic Organic Chemical Agro/Chemical manufacturing unit.

#### **2.2 Location of project:**

- The location of the project is D-2/CH-173 & CH-222, Dahej GIDC-2, Nr. Village Galenda, City: Galenda, Dist: Bharuch, Taluka: VagraDist: Bharuch, Gujarat
- The geographical information of the proposed project is as given below:

Latitude: 21°73'13.93"N

Longitude: 72°65'34.87"E

#### **2.3 Details of alternative site considered:**

Not Applicable

## 2.4 Salient features of selected site:

The proposed activities will be carried out in our premises which is located in Dahej SEZ area where the all resources like well-developed infrastructure facility, man power, well communication facilities, good transportation facilities i.e., road, sea-port, air- port etc. are easily available.

It would not be out place to mention that there are no National Park/ Wildlife Habitats/ Ecological Sensitive areas covered within 10 km radius.

## 2.5 Size or magnitude of project:

The production capacity of the project is given below:

**Table 1: Production Capacity Details:**

Sr. No.	Product Name	CAS No.	Production Capacity granted as per EC dated 22-07-2013 (MT/Month)	Production Capacity requested vide this EC Application (MT/Month)
<b>NEWAGE FLUORO REFRIGERANT GASES</b>				
1.	HFC 125	354-33-6	900	300
2.	HFC 32	75-10-5	900	300
3.	HFC-410	--	1800	600
4.	HFC 134A & HFC 407 Mixture	811-97-2, 75-10-5	500	100
<b>FLUORO PRODUCTS</b>				
5.	HFP ( HexaFluoro Propene)	116-15-4	900	300
6.	HFC - 227ea (Heptafluoropropane)	431-89-0	300	100
<b>FLUORO POLYMERS</b>				
7.	Tetra Fluoro Ethylene (TFE)	116-14-3	675	1000
8.	Poly Tetra Fluoro Ethylene ( PTFE)	9002-84-0	1600	1000
9.	#Micro powder PTFE Direct Polymerized/ Thermally Degraded/ Irradiated <i>#Out of 1600, 200 MT Micro powder PTFE is being manufactured by GFL.</i>	9002-84-0		
10.	Suspension/Emulsion/ Modified/Post Treated	9002-84-0		
11.	PFA (Perfluorinated Ethylene Alkoxy)	63585-09-1	400	100
12.	FEP ( Fluorinated Ethylene Propylene)	25067-11-2	400	200
13.	ETFE (Ethylene Tetrafluorethylene)	25038-71-5	400	150

14.	ISAN	--	--	150
<b>FLUORO POLYMERS</b>				
15.	PCTFE ,ECTFE & CTFE/ VDF Copolymers	9002-83-9, 25101-45- 5, 79-38-9/ 75-38-7	--	75
16.	PVDF (Polyvinylidene Fluoride)	24937-79-9	--	200
17.	VDF (Vinylidene Fluoride)	75-38-7	--	500
18.	R142B (Chlorodifluorethane)	75-68-3	--	1000
19.	R152A and 1,1,1 TCE	75-37-6	--	750
20.	FKM ( Fluoroelastomers)	5666-77-2	--	300
21.	PPA (Polymer Processing Additives)	13159-16-5	--	250
22.	Fluoropaints	--	--	100
23.	Perfluoropolyethers	76415-97-9	--	100
24.	AHF ( Anhydrous Hydrofluoric Acid)	7664-39-3	--	750
25.	F-Surfactants, NF- Surfactants	9003-11-6, 9002-93-1	--	125
<b>SULFURIC ACID</b>				
26.	Sulfuric Acid 98%	7664-93-9	7500	7500
27.	Oleum 20-30%	8014-95-7	3000	3000
<b>ENGINEERING</b>				
28.	HDPE Drums	--	12000 No./day	16000 No./day
29.	LDPE Liners	--	4000 No./day	6000 No./day
30.	PVDF Membranes	24937-79-9	--	100
31.	PCTFE Film	9002-83-9	--	100
<b>ENGINEERING</b>				
32.	PTFE Auto Tubes	9002-84-0	--	200
33.	FKM O Rings /Gaskets	9011-17-0	--	100
34.	PTFE Sheets/Gaskets	9002-84-0	--	100
<b>CHLOROMETHANES</b>				
35.	Chloroform	67-66-3	10800	5400
36.	Methylene Dichloride (MDC)	75-09-2	10800	5400
37.	Sulphuric Acid 88%	7664-93-9	4800	4100
38.	Carbon Tetrachloride (CTC)	56-23-5	1500	750
<b>CHLORALKALI</b>				
39.	Caustic Soda (Dry Basis)	1310-73-2	17000	7000
40.	Chlorine Dry Basis	7782-50-5	15000	6200
41.	Sodium hypochlorite 10% chlorine	7681-52-9	150	150
42.	Hydrogen	1333-74-0	500	500
43.	HCL as eq 100%(31% Actual)	7647-01-0	15000	150
44.	Sulphuric Acid 70%	7664-93-9	--	350
<b>MISC</b>				

45.	H <sub>2</sub> SiF <sub>6</sub> AS eq 20%	16961-83-4	1000	497
46.	Gypsum	13397-24-5	15000	7450
47.	Calcium chloride as eq. 94% for sea disposal	10043-52-4	4750	3000
48.	Dil. HF as eq 20%	7664-39-3	1000	1000
49.	HCL as eq 31 % (18% and 31% actual)	7647-01-0	150	29030
<b>MISC.</b>				
50.	High Boilers of Chloromethane	--	200	400
51.	Misc. Polymer processing aids	--	--	1000
<b>CAPTIVE POWER PLANT</b>				
52.	Power Plant (Coal based)	--	37 MW	4.75 MW
53.	Process Steam (Coal based)	--	60 TPH	120 TPH
<b>FLURO SPECIALLITY PRODUCTS</b>				
54.	BromoTrifluoromethane (BTFM)	75-63-8	--	125
55.	Sodium trifluoromethylsulfinate (STFMS)	2926-29-6		
56.	Hexafluoroacetone trihydrate (HFAT)	34202-69-2		
57.	Hexafluoroisopropanol (HFIP) and Derivatives	920-66-1		
58.	Hexafluoropropylene oxide and derivatives	428-59-1		
59.	Ethyl Difluoroacetate (EDFA) / Bromodifluoroethylacetate (Br-EDFA)	454-31-9 / N. A	--	208
60.	a) 1,1,2,2-Tetrafluoroethyl 2,2,3,3-Tetrafluoropropyl Ether	16627-68-2		
	b) 1,1,2,2-Tetrafluoroethyl n-butyl Ether	358-37-2		
	c) 1,1,2,2-Tetrafluoroethyl n-Propyl Ether	16627-68-2		
	d) 3,5-Dichloro-4-(1,1,2,2-tetrafluoroethoxy)Aniline	104147-32-2		
	e) Diiodoperfluoroalkane (Iodate)	--		
61.	Difluoroacetone	431-05-0		
	Methyl hydrazine	60-34-4		
	Methyl 3-Methoxy Acrylate	34846-90-7		
	Ethyl 2,3-Dicyanopropionate	40497-11-8		
<b>FLURO SPECIALLITY PRODUCTS</b>				
62.	2,4-Dichloro-4-trifluoromethyl Aniline	24279-39-8	--	150

	(DCTFMA)			
63.	4-(Heptafluoroisopropyl)-2-methyl aniline (RFA)	238098-26-5		
64.	2,4-Difluoroaniline (2,4-DFA)	367-25-9		
65.	3,5-Difluoroaniline	372-39-4		
66.	1,3-Difluorobenzene (1,3-DFB)	372-18-9	--	125
67.	1,2-Difluorobenzene (1,2-DFB)	367-11-3		
68.	Fluorobenzene (FB)	462-06-6		
69.	a)1,2,4-Trifluorobenzene (1,2,4-TFB)/ b)1,2,3-Trifluorobenzene/ c)1-bromo-3,4,5-Trifluorobenzene	a) 367-23-7 b) 1489-53-8 c) 138526-69-9		
70.	Benzotrifluoride (BTF)	98-08-8	--	438
71.	Benzotrichloride (BTC)	98-07-7		
72.	Para chlorobenzotrifluoride (PCBTF)	98-56-6		
73.	Para chlorobenzotrichloride (PCBTC)	5216-25-1		
74.	3-Amino benzotrifluoride (3-ABTF)	98-16-8		
75.	Bromofluorobenzotrifluoride (BrFBTF)	40161-55-5		
76.	2 Amino 5 ChloroBenzotrifluoride	445-03-4		
77.	3-Trifluoromethyl acetophenone	349-76-8	--	150
78.	4-Trifluoromethyl benzyl alcohol	349-95-1		
79.	4-Trifluoromethyl benzaldehyde	455-19-6		
80.	4-Fluoro3-phenoxy benzaldehyde	68359-57-9		
81.	2,4,5-Trifluorophenyl acetic acid	209995-38-0		
<b>FLUORO SPECIALITY PRODUCTS</b>				
82.	Difluoromethanesulfinyl chloride (DFMSC)	1512-30-7	--	425
83.	2-Trifluoromethyl benzamide	360-64-5		
84.	2-(3,4-Di-fluorophenyl)-1,3-dioxalane	773101-62-5		
85.	2-Bromo Heptafluoropropane (BHFP)	422-77-5		
86.	1,2-Dibromo Hexafluoro Propane (DBHFP)	211-550-8		
87.	Per fluoro propyl per fluorovinyl ether (PPVE)	1623-05-8		

88.	Bisphenol AF	1478-61-1		
89.	Tetrafluoropropane 1234yf	754-12-1		
90.	Perfluoro-1-Iodohexane	355-43-1		
91.	2,6 Difluorobenzonitrile/ 2,6-Difluorobenzamide	1897-52-5/ 18063-03-1		
92.	2,4,5-Trifluoro-3-methoxy benzoyl chloride	112811-66-2		
93.	5-Amino-1-(2,6-dichloro-4- trifluoromethylphenyl)-3- cycano pyrazole (DCTFMA- Pyrazole)	120068-79-3		
94.	2-chlorobenzonitrile	873-32-5		
95.	4-chlorobenzonitrile	6574-98-7		
96.	3,4-Dichlorobenzonitrile	6574-99-8		
97.	2,6-Dichlorobenzonitrile	1194-65-6		
98.	2,4-Dichlorobezonitrile/ 2,4-Difluorobenzonitrile	6574-98-7/ 3939-09-1		
99.	3-(Difluoromethyl)-1-methyl- 1H-pyrazole-4-carboxylic acid (Pyrazole acid)	176969-34-9		
<b>FLUORO SPECIALLITY PRODUCTS</b>				
100.	TriethylOrthoformate	149-73-5	--	258
101.	2,4-Difluorobenzylamine	72235-52-0		
102.	3,4-Dichloro-6- (trifluoromethyl)Toluene	74483-51-5		
103.	3,4 Difluoronitrobenzene	369-34-6		
104.	Tetrafluoro ethyl dimethyl amine (TFEDMA)	1550-50-1		
105.	4-Fluoronitrobenzene	350-46-9		
106.	4-Fluoroaniline	371-40-4		
107.	5-Fluorocytosine	2022-85-7		
108.	Fipronil	120068-37-3		
109.	Sulfentrazone intermediate and sulfintrazone	122836-35-5		
110.	Carfentrazone intermediate and Carfentrazone	128639-02-1		
111.	R & D products (Halo aromatics, Halo aliphatic compounds and its derivatives)	--	--	92
<b>INORGANICS</b>				
112.	Potassium Fluoride (KF)	7789-23-3	--	500
113.	Lithium Hexafluoro Phosphate (LiF <sub>6</sub> P <sub>4</sub> )	21324-40-3		
<b>MISC.</b>				
114.	24-25% NaBr	7647-15-6	--	3242
115.	30% HCl	870-24-6	--	17296

116.	Spent acid	7664-93-9	--	5211
117.	H <sub>2</sub> SiF <sub>6</sub> AS eq 25%	16961-83-4	--	356
118.	1,3 Dioxole	--	--	160
119.	NaCl	7647-14-5	--	80
120.	20% Ammonia	1336-21-6	--	318
121.	Aqueous with Copper acetate	--	--	236
122.	Ammonium sulfate solution	7783-20-2	--	13
123.	KF+KBr	--	--	284
124.	KF+KCl	--	--	3392
125.	Aluminium chloride	7446-70-0	--	3
126.	BF <sub>3</sub> water	7637-07-2	--	127
127.	Acetone	67-64-1	--	34
128.	IPA	67-63-0	--	150
129.	4 Amino BTF	--	--	30
130.	2 Amino BTF	--	--	10
131.	Aluminium hydroxide	21645-51-2	--	414
132.	Benzyl Chloride	100-44-7	--	340
133.	10 % NaSH	207683-19-0	--	213
<b>MISC.</b>				
134.	FeCl <sub>3</sub>	7705-08-0	--	24
135.	Dimethyl amine	124-40-3	--	121
136.	KF	7789-23-3	--	298
137.	KCl	7447-40-7	--	964
138.	Methyl amine - 26%	--	--	243
139.	Propionic acid	79-09-4	--	142
140.	Acetic acid	64-19-7	--	774
141.	20% DHF	7664-39-3	--	241
142.	18-20% HCl	7647-01-0	--	2990
143.	KBr + Sodium acetate	--	--	403
144.	Bromine	7726-95-6	--	47
145.	SiO <sub>2</sub>	14808-60-7	--	52
146.	Calcium Hydroxide (Ca(OH) <sub>2</sub> )	1305-62-0	--	1204

## 2.6 Project description with process details

The proposed project is a expansion project for manufacturing of products as mentioned in Table 1. The proposed activities will be carried out within premises located in Dahej GIDC. The detail of capacity of product is as per the Table-1. For detail of manufacturing process of the above stated products, please refer **Annexure-6 of Form-1**.

## 2.7 Raw material requirement

The details of raw materials required for the manufacturing of the proposed products are given below:

**Table 2: Raw Material Consumption**

S. N.	Name of Products	Name of Raw Materials	CAS No.	Quantity (MT/M)
<b>NEWAGE FLUORO REFRIGERANT GASES</b>				
1.	<b>HFC 125</b>	TFE	116-14-3	257.40
		AHF	7664-39-3	53.32
		TBA	75-65-0	12.00
2.	<b>HFC 32</b>	Methylene Dichloride	75-09-2	534.60
		AHF	7664-39-3	241.20
		Liquid Chlorinne	7782-50-5	4.80
		10% NaOH	1310-73-2	1.50
		Catalyst Molecular Sieve	--	210.00
3.	<b>HFC-410</b>	Difluoromethane	75-10-5	300.00
		Pentafluoroethane	354-33-6	300.00
4.	<b>HFC 134A &amp; HFC 407 Mixture</b>	HCFC-133a	75-88-7	139.41
		AHF	7664-39-3	19.61
		48% KOH	1310-58-3	137.25
		Difluoromethane	75-10-5	23.00
		Pentafluoroethane	354-33-6	25.00
		1,1,1,2-Tetrafluoroethane	811-97-2	52.00
<b>FLUORO PRODUCTS</b>				
5.	<b>HFP(HexaFluoro Propene)</b>	TFE	116-14-3	810.00
		Fresh C4F8	115-25-3	3.00
		Recycled C4F8	115-25-3	147.00
6.	<b>HFC - 227ea (Heptafluoroprop ane)</b>	HFP	920-66-1	186.4
		AHF	7664-39-3	27.6
		Catalyst	--	10.00
<b>FLUORO POLYMERS</b>				
7.	<b>Tetra Fluoro Ethylene (TFE)</b>	Fluorspar	7782-41-4	4422.00
		Sulphuric Acid	7664-93-9	5136.00
		NaOH	1310-73-2	98.00
		SiO <sub>2</sub>	7631-86-9	38.00
		AHF	7664-39-3	1924.00
		Chloroform	67-66-3	5524.00
		Chlorine	7782-50-5	8.00
		H <sub>2</sub> SO <sub>4</sub> (98%)	7664-93-9	1478.00
		Caustic (100%)	1310-73-2	38.00
		R-22	75-45-6	3810.00
8.	<b>Poly Tetra Fluoro Ethylene (PTFE)</b>	R-22	75-45-6	2161.00
		Buffer	--	0.32
		Initiator 1	7720-78-7	0.01
		Initiator 2	7727-54-0	0.01
		Initiator 3	761-90-5	0.01
		Ammonia Solution	7664-41-7	3.16
		Silica Gel	63231-67-4	0.5
		TFE	116-14-3	1135

9.	<b>Micro Powder PTFE Direct Polymerized/ Thermally Degraded/ Irradiated</b>	R-22	75-45-6	2126
		Stabilizer	--	1.875
		Monomer 01: TFE	116-14-3	1116.25
		Monomer 02: HFP	920-66-1	3.25
		Monomer 03:PPVE	1623-05-8	3
		Monomer 04:CTFE	79-38-9	3
		Surfactant	--	18.75
		Initiator Solution	--	16.25
		Coagulant Solution	--	18.75
		SPTFE/DPTFE Milled Product	9002-84-0	1000.00
10.	<b>Suspension/ Emulsion/ Modified/ Post Treated</b>	R-22	75-45-6	2161.00
		Ammonia Solution	1336-21-6	3.16
		Silica Gel	7631-86-9	0.5
		TFE	116-14-3	1135.00
		Stabilizer	--	1.875
		Monomer 01: TFE	116-14-3	1116.25
		Monomer 02: HFP	920-66-1	3.25
		Monomer 03:PPVE	1623-05-8	3.00
		Monomer 04:CTFE	79-38-9	3.00
		Surfactant	--	18.75
		Initiator Solution	--	16.25
		Coagulant Solution	--	18.75
		Buffer	--	3.16
		Initiator 1	--	0.5
		Initiator 2	--	1135.00
Initiator 3	--	30.00		
11.	<b>PFA (Perfluorinated Ethylene Alkoxy)</b>	TFE	116-14-3	267.5
		PPVE	1623-05-8	19.25
		GNX-Surfactant	6540-99-4	4.45
		KPS-Initiator	7727-21-1	0.05
		Ethane Gas	74-84-0	0.137
		HNO <sub>3</sub> -Coagulant	7697-37-2	12.5
12.	<b>FEP (Fluorinated Ethylene Propylene)</b>	TFE	116-14-3	428.00
		HFP	116-15-4	72.00
		GNX-Surfactant	6540-99-4	7.08
		APS-Initiator	7727-54-0.	0.25
		KPS-Initiator	7727-21-1	0.25
		Ethane Gas	74-84-0	0.05
HNO <sub>3</sub> -Coagulant	7697-37-2	20.00		
13.	<b>ETFE (Ethylene Tetrafluorethylene)</b>	TFE	116-14-3	205.5
		Ethanol	64-17-5	94.5
		KOH	1310-58-3	16.2
14.	<b>ISAN</b>	MDC	75-09-2	375.00
		SAN	9003-54-7	75.00
		Aq. PTFE(20%)	9002-84-0	375.00
		10% Sulfuric acid	7664-93-9	7.5
15.	<b>PCTFE, ECTFE &amp; CTFE/ VDF Copolymers</b>	CTFE	79-38-9	100.00
		APS	7727-54-0	3.2
		Sodium metabisulphite	7681-57-4	1.8
		Methanol	67-56-1	50.00
		IPA	67-63-0	400.00

		Potassium Nitrate	7757-79-1	0.8
		Monomers (Ethylene+CTFE)	74-85-1 + 79-38-9	119.0
		Buffer	--	0.032
		Initiator-1	--	0.0015
		Initiator-2	--	0.0015
		Chain Transfer Agent	--	0.01
		Spent Solid Silica Gel	7631-86-9	0.05
		Monomers (VDF+CTFE)	75-38-7 +79-38-9	117.00
		Chain Transfer Agent	--	0.01
		Surfactant	--	0.004
16.	<b>PVDF</b>	VDF	75-38-7	468.00
		Buffer	7720-78-7	0.128
		Initiator-1	141-78-6	0.004
		Initiator-2	160-66-38-9	0.004
		Initiator-3	NA	0.004
		Solid Spent Silica Gel	63231-67-4	0.2
		Surfactant	NA	0.016
17.	<b>VDF</b>	R-142b	75-68-3	947.1
18.	<b>R142B</b>	R-152a	75-37-6	1472.00
		Chlorine	7782-50-5	1774.00
		NaOH Solution	1310-73-2	200.00
		Silica Gel (as Moisture Adsorber)	7631-86-9	1000.00
19.	<b>R152A</b>	CaC <sub>2</sub>	75-20-7	2181.85
		HF	7664-39-3	965.35
		NaOH	1310-73-2	60.00
		HSO <sub>3</sub> Cl	7790-94-5	60.00
20.	<b>PMVE</b>	HFP	920-66-1	22.6
		Peroxide	7722-84-1	5.125
		Carbonyl Fluoride	353-50-4	9.25
		Sodium Carbonate	497-19-8	15.97
21.	<b>FKM</b>	HFP	116-15-4	184.00
		VDF	75-38-7	272.00
		TFE	116-14-3	80.00
		Initiator-1	141-78-6	1.6
		Initiator-2	7727-54-0	1.4
22.	<b>PPA</b>	FKM	--	225.00
		Talc	14807-96-6	24.5
		SiO <sub>2</sub> Amorphous	7631-86-9	0.5
		Poly Ethylene Glycol	25322-68-3	162.5
23.	<b>Fluorotelomers</b>	PFEI	354-64-3	4.9
		TFE	116-14-3	96.8
		Ethylene	74-85-1	0.6
24.	<b>Fluoropaints</b>	PTFE	9002-84-0	43.00
		SLS	151-21-3	0.03
		Acrylic Latex	9063-87-0	4.81
		Non-ionic Surfactant	6540-99-4	2.58
		Toluene	108-88-3	2.85
		Pigment TiO <sub>2</sub>	13463-67-7	0.43
25.	<b>Perfluoropoly-</b>	HFP	920-66-1	123.75

	<b>ethers</b>	Oxygen	7782-44-7	17.5
26.	<b>AHF</b>	Fluorspar	7782-41-4	3527.36
		Sulphuric Acid	7664-93-9	4104.18
		NaOH	1310-73-2	77.01
		SiO <sub>2</sub>	7631-86-9	37.71
27.	<b>F-Surfactants, NF- Surfactants</b>	Ethanol	64-17-5	1984.75
		NaOH Flakes	1310-73-2	75.25
		Fatty Alcohol	--	174.75
		CAA	--	88.75
		PFBS	375-73- 5 59933-66-3	192.30
		KOH Flakes	1310-58-3	57.6
<b>SULFURIC ACID</b>				
28.	<b>Sulfuric Acid 98%</b>	S	7704-34-9	1920
		O <sub>2</sub>	7782-44-7	2880
		SO <sub>2</sub>	7446-09-5	3840.00
		H <sub>2</sub> SO <sub>4</sub>	7664-93-9	5880.00
		SO <sub>3</sub>	7446-11-9	4800.00
		H <sub>2</sub> SO <sub>4</sub> .SO <sub>3</sub>	--	10680.00
29.	<b>Oleum 20-30%</b>	S	7704-34-9	2094
		O <sub>2</sub>	7782-44-7	3144
		SO <sub>2</sub>	7446-09-5	4194
		H <sub>2</sub> SO <sub>4</sub>	7664-93-9	762
		SO <sub>3</sub>	7446-11-9	5238
<b>ENGINEERING</b>				
30.	<b>HDPE Drums</b>	HDPE Granules	9002-88-4	0.995 MT/MT
		Regrind Materials	--	0.005 MT/MT
31.	<b>LDPE Liners</b>	LDPE Granules	9002-88-4	1 MT/MT
32.	<b>PVDF Membranes</b>	PVDF Pellets	24937-79-9	102.5
		Diluent	--	410.00
		Volatile reagent	--	0.05
33.	<b>PCTFE Film</b>	PCTFE Pellets	9002-83-9	70.5
		PMMA Pellets	9011-14-7	0.3
34.	<b>PTFE Auto Tubes</b>	PTFE Fine Powder	9002-84-0	210.6
		Lube Oil	72623-86-0	42.2
35.	<b>FKM O Rings /Gaskets</b>	FKM Precompound	--	100.5
36.	<b>PTFE Sheets/Gaskets</b>	PTFE Powder	9002-84-0	100.2
<b>CHLOROMETHANES</b>				
37.	<b>Chloroform</b>	Methanol	67-56-1	3402.00
		Hydrochloric Acid	7647-01-0	3123.00
		98% Sulphuric Acid	7664-93-9	3150.00
		Catalyst Aluminium Oxide	1344-28-1	9.00
38.	<b>Methylene Dichloride (MDC)</b>	Methanol	67-56-1	5670.00
		Hydrochloric Acid	7647-01-0	5205.00
		98% Sulphuric Acid	7664-93-9	5250.00
		Catalyst Aluminium Oxide	1344-28-1	15.00
		Chlorine Gas	7782-50-5	15210.00
		48% NaOH for	1310-73-2	315.00

		Scrubber		
		Desiccant Silica Gel	7631-86-9	7.5
		Desiccant Calcium Chloride	10043-52-4	7.5
		Nitrogen	7727-37-9	15.00
39.	<b>Sulphuric Acid 88%</b>	Methanol	67-56-1	4365.63
		Hydrochloric Acid	7647-01-0	4007.60
		98% Sulphuric Acid	7664-93-9	4042.25
		Catalyst Aluminium Oxide	1344-28-1	11.54
41.	<b>Carbon Tetrachloride (CTC)</b>	Methanol	67-56-1	7087.5
		Hydrochloric Acid	7647-01-0	6506.25
		98% Sulphuric Acid	7664-93-9	6562.5
		Catalyst Aluminium Oxide	1344-28-1	18.75
		Chlorine Gas	7782-50-5	19012.5
		48% NaOH for Scrubber	1310-73-2	393.75
		Desiccant Silica Gel	7631-86-9	0.94
		Desiccant Calcium Chloride	10043-52-4	0.94
		Nitrogen	7727-37-9	18.75
<b>CHLORALKALI</b>				
42.	<b>Caustic Soda (Dry Basis)</b>	Raw Salt	127-68-4	10962.00
		Sodium Sulphite	7757-83-7	21.00
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	252.00
		BaCO <sub>3</sub> solution	513-77-9	105.00
		Sodium Carbonate	497-19-8	56.00
		Flocculent	--	133.00
		Alpha-cellulose	9004-34-6	56.00
		32% NaOH	1310-73-2	147.00
		Return Brine	7732-18-5 74 - 95	52500
		31% HCl	7647-01-0	1232.00
43.	<b>Chlorine Dry Basis</b>	Raw Salt	127-68-4	10553.47
		Sodium Sulphite	7757-83-7	20.21
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	242.60
		BaCO <sub>3</sub> solution	513-77-9	101.08
		Sodium Carbonate	497-19-8	53.91
		Flocculent	--	128.04
		Alpha-cellulose	9004-34-6	53.91
		32% NaOH	1310-73-2	141.52
		Return Brine	7732-18-5 74 - 95	50543.47
		31% HCl	7647-01-0	1186.08
44.	<b>Sodium hypochlorite 10% chlorine</b>	Raw Salt	127-68-4	117450.00
		Sodium Sulphite	7757-83-7	225.00
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	2700.00
		BaCO <sub>3</sub> solution	513-77-9	1125.00
		Sodium Carbonate	497-19-8	600.00
		Flocculent	--	1425.00
		Alpha-cellulose	9004-34-6	600.00
		32% NaOH	1310-73-2	1575.00

		Return Brine	7732-18-5 74 - 95	562500.00
		31% HCl	7647-01-0	13200.00
45.	<b>Hydrogen</b>	Raw Salt	127-68-4	31320.00
		Sodium Sulphite	7757-83-7	60.00
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	720.00
		BaCO <sub>3</sub> solution	513-77-9	300.00
		Sodium Carbonate	497-19-8	160.00
		Flocculent	--	380.00
		Alpha-cellulose	9004-34-6	160.00
		32% NaOH	1310-73-2	420.00
		Return Brine	7732-18-5 74 - 95	150000.00
		31% HCl	7647-01-0	3520.00
		46.	<b>HCL as eq 100% (31%Actual)</b>	Raw Salt
Sodium Sulphite	7757-83-7			2.55
98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9			30.68
BaCO <sub>3</sub> solution	513-77-9			12.78
Sodium Carbonate	497-19-8			6.81
Flocculent	--			16.19
Alpha-cellulose	9004-34-6			6.81
32% NaOH	1310-73-2			17.89
Return Brine	7732-18-5 74 - 95			6392.04
31% HCl	7647-01-0			150.00
47.	<b>Sulphuric Acid 70%</b>			Raw Salt
		Sodium Sulphite	7757-83-7	21.00
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	252.00
		BaCO <sub>3</sub> solution	513-77-9	105.00
		Sodium Carbonate	497-19-8	56.00
		Flocculent	--	133.00
		Alpha-cellulose	9004-34-6	56.00
		32% NaOH	1310-73-2	147.00
		Return Brine	7732-18-5 74 - 95	52500.00
		31% HCl	7647-01-0	1232.00
<b>MISC</b>				
48.	<b>H<sub>2</sub>SIF<sub>6</sub> As eq 20%</b>	Fluorspar	7782-41-4	2297
		Sulphuric Acid	7664-93-9	2669
		NaOH	1310-73-2	51
		SiO <sub>2</sub>	7631-86-9	21
49.	<b>Gypsum</b>	Fluorspar	7782-41-4	34455
		Sulphuric Acid	7664-93-9	40035
		NaOH	1310-73-2	765
		SiO <sub>2</sub>	7631-86-9	315

50.	<b>Calcium chloride as eq. 94% for sea disposal</b>	HCl in HCl solution	7647-01-0	3948
		Water with HCl solution	7647-01-0	9210
		CaCO <sub>3</sub> with Lime	--	5676
		MgCO <sub>3</sub> with Lime	--	108
		SiO <sub>2</sub> with Lime	7631-86-9	456
		Water with Lime	--	54
		Ca(OH) <sub>2</sub>	1305-62-0	282
		CaCl <sub>2</sub>	10043-52-4	6000
51.	<b>Dil. HF as eq 20%</b>	Fluorspar	7782-41-4	2297
		Sulphuric Acid	7664-93-9	2669
		NaOH	1310-73-2	51
		SiO <sub>2</sub>	7631-86-9	21
53.	<b>High Boilers of Chloromethane</b>	--	--	--
54.	<b>Misc. Polymer processing aids</b>	Bisphenol AF	1478-61-1	792.4
		BTPPC	1100-88-5	229.1
		NaOH	1310-73-2	23.6
<b>FLUORO SPECIALITY PRODUCTS</b>				
55.	<b>BromoTrifluoro methane (BTFM)</b>	Trifluoromethane	75-46-7	58.75
		Bromine	7726-95-6	200
		Caustic Solution (10%) for Scrubber	1310-73-2	489.12
56.	<b>Sodium Trifluoromethyls ulfinat e (STFMS)</b>	Bromotrifluoro-methane	75-63-8	368.75
		Sodium dithionite	7775-14-6	348.5
		Acetonitrile	75-05-08	676.12
		Ethyl acetate	141-78-6	697.12
		Sodium carbonate	497-19-8	230.5
		10 % NaOH for scrubber	1310-73-2	200.37
57.	<b>Hexafluoro acetone trihydrate (HFAT)</b>	Hexachloroacetone	116-16-5	721.8
		HF	7664-39-3	327.00
		Catalyst	--	6.00
58.	<b>Hexafluoroisopr opanoal (HFIP)</b>	Hexafluoroacetone trihydrate	34202-69-2	163.75
		Hydrogen	1333-74-0	1.5

	<b>and Derivatives</b>	Methanol	67-56-1	512.25
		Catalyst	--	1.00
59.	<b>Hexafluoropropylene oxide and derivatives</b>	Hexafluoropropene	116-15-4	125.5
		Oxygen	7782-44-7	12
		10% NaOH solution	1310-73-2	26.37
		Fluorocarbon Solvent	75-43-4	62.5
60.	<b>Ethyl Difluoroacetate (EDFA) /Bromodifluoroethylacetate (Br-EDFA)</b>	ETFEE	512-51-6	291.6
		Silica	7631-86-9	59.9
		Sulphuric acid	7664-93-9	145.6
		20% DHF	7664-39-3	283.5
		CTFE	79-38-9	188.24
		Bromine	7726-95-6	163.9
		Oleum 65%	8014-95-7	389.78
		Ethanol	64-17-5	58.86
		CuO	1317-38-0	2.48
				NaOH solution
61.	<b>a) 1,1,2,2-Tetrafluoroethyl 2,2,3,3-Tetrafluoropropyl Ether</b>	Tetrafluoroethylene	116-14-3	89.64
		2,2,3,3-Tetrafluoro-1-propanol	76-37-9	345.68
		KOH	1310-58-3	73.84
	<b>b) 1,1,2,2-Tetrafluoroethyl n-butyl Ether</b>	Tetrafluoroethylene	116-14-3	119.38
		Butanol	71-36-3	127.92
		KOH	1310-58-3	19.34
	<b>c) 1,1,2,2-Tetrafluoroethyl n-Propyl Ether</b>	Tetrafluoroethylene	116-14-3	130
		Propanol	71-23-8	336.74
		KOH	1310-58-3	97.34
	<b>d) 3,5-Dichloro-4-(1,1,2,2-tetrafluoroethoxy) Aniline</b>	2,6-dichlorophenol	87-65-0	184.7
		70% HNO <sub>3</sub>	7697-37-2	102.12
		MDC	75-09-2	739.22
		4-nitro-2,6-dichlorophenol	2423-71-4	235.86
		Ra-Ni	7440-02-0	11.84
		Methanol	67-56-1	825.34
		Hydrogen	1333-74-0	6.86
		4-amino-2,6-dichlorophenol	5930-28-9	201.76
		N,N-Dimethyl formamide (DMF)	68-12-2	970.24
		K <sub>2</sub> CO <sub>3</sub>	584-08-7 6381-79-9	48.46
	TFE	116-14-3	85.28	
<b>e) Diiodoperfluoroalkane (Iodurate)</b>	Tetrafluoroethylene	116-14-3	100.88	
	Iodine	7553-56-2	127.92	
62.	<b>Difluoroacetone</b>	Ethyl difluoroacetoacetate	352-24-9	386.6
		Phosphoric acid	7664-38-2	193.22
	<b>Methyl Hydrazine</b>	Hydrazine hydrate - 80%	7803-57-8	112.94
		Methanol	67-56-1	64.26
		NaHSO <sub>3</sub>	7631-90-5	1.04

		PTSA	104-15-4 6192-52-5	2.08
	<b>Methyl 3-Methoxy Acrylate</b>	Methyl acrylate	96-33-3	428.48
		Methanol	67-56-1	191.36
		5% Pd/C	7440-05-3	12.84
		Oxygen	7782-44-7	4.16
		CuCl <sub>2</sub> dihydrate	10125-13-0	17.04
		3,3-Dimethoxy propionate	7424-91-1	442.4
		Methane sulfonic acid	75-75-2	90.06
	<b>Ethyl 2,3-Dicyano propionate</b>	ParaFormaldehyde	30525-89-4	45.54
		Sodium cyanide	143-33-9	141.42
		HCl gas	7647-01-0	49.92
		Ethanol	64-17-5	200.92
		Ethyl chloroacetate	105-39-5	206.74
		Ethyl cyano acetate	105-56-6	171.8
		Glycolonitrile	107-16-4	78
		Sodium ethoxide + Ethanol	141-52-6 + 64-17-5	185.94
		HCl	7647-01-0	49.92
		MDC for washing	75-09-2	104
63.	<b>2,4-Dichloro-4-trifluoromethyl Aniline (DCTFMA)</b>	p-Chlorobenzotri-fluoride	98-56-6	402.68
		Sulfolane	126-33-0	313.35
		Ammonia	1336-21-6	133.12
		Copper Acetate	142-71-2	47.21
		Copper Powder	7440-50-8	10.92
		Sodium bicarbonate	144-55-8	5.92
		DVP solvent	67-64-1	47.11
		5 % H <sub>2</sub> SO <sub>4</sub> for Ammonia Solution	7664-93-9	12.68
		TFMA	455-14-1	84.24
		Cl <sub>2</sub>	7782-50-5	67.6
		EDC	25952-53-8	242.32
		Catalyst	--	1.04
		Ammonia	1336-21-6	4.16
		64.	<b>4-(Heptafluoroiso propyl)-2-methyl aniline (RFA)</b>	HexaFluoro Propylene
Bromine	7726-95-6			88.4
Acetonitrile	75-05-08			388.23
Sodium thiosulphate solution	7772-98-7			20.8
1,2 DiBromoHexafluoro Propane	661-95-0			162.86
KF	7789-23-3			30.47
Sulfolane	126-33-0			208
Chloroform	67-66-3			20.8
BromoHeptafluoro Propane	431-89-0			104.62
O-Toluidine	95-53-4			40.45
Sodium dithionite	7775-14-6			104.00

		Sodium bicarbonate	144-55-8	104.00
65.	<b>2,4-Difluoroaniline (2,4-DFA)</b>	1,3 Dichloro Benzene	541-73-1	159.00
		MDC	75-09-2	79.45
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	418.91
		70% HNO <sub>3</sub>	7697-37-2	106.49
		2.5% NaOH for washing	1310-73-2	318.03
		2,4 Dichloro nitrobenzene	611-06-3	203.52
		KF	7789-23-3	132.28
		Sulfolane	126-33-0	610.48
		TBAB	1643-19-2	2.08
		2,4-Difluoro Nitrobenzene	446-35-5	200.40
		Pd/C	7440-05-3	1.35
		Methanol	67-56-1	13.52
		Hydrogen	1333-74-0	13.52
		66.	<b>3,5-Difluoroaniline</b>	1,3-Difluorobenzene
Aluminium chloride	7446-70-0			2.49
Chlorine gas	7782-50-5			155.16
Chloroform	67-66-3			252.09
48% NaOH solution	1310-73-2			33.07
1,5-Dichloro-2,4-difluorobenzene	2253-30-7			182.00
70% Nitric acid	7697-37-2			84.55
H <sub>2</sub> SO <sub>4</sub>	7664-93-9			253.76
MDC	75-09-2			182.00
2.5% Caustic solution	1310-73-2			91.00
2,4-Dichloro-1,5-difluoro-3-nitrobenzene	2105-59-1			204.0
Hydrogen	1333-74-0			8.21
5% Pd/C	7440-05-3			1.56
Methanol	67-56-1			130.00
15% caustic solution	1310-73-2	429.52		
67.	<b>1,3-Difluorobenzene (1,3-DFB)</b>	1,3 Dichloro Benzene	541-73-1	308.87
		MDC	75-09-2	154.5
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	824.87
		70% HNO <sub>3</sub>	7697-37-2	207.00
		2.5% NaOH for washing	1310-73-2	6178.75
		2,4 Dichloro nitrobenzene	611-06-3	395.37
		KF	7789-23-3	257.00
		Sulfolane	126-33-0	1186.12
		TBAB	1643-19-2	4.00
		2,4-Difluoro nitrobenzene	446-35-5	262.12
		Pd/C	7440-05-3	2.62
		Methanol	67-56-1	26.25
		Hydrogen	1333-74-0	26.25
		2,4 - Difluoro Aniline	367-25-9	202.12

		30% HCl	7647-01-0	379.87
		Cu <sub>2</sub> O	1317-39-1	2.87
		IPA	67-63-0	303.12
		NaNO <sub>2</sub>	7632-00-0	117.25
		40% NaOH	1310-73-2	30.25
68.	<b>1,2-Difluorobenzene (1,2-DFB)</b>	2-Fluoroaniline	348-54-9	173.87
		30% HCl	7647-01-0	476.00
		Water for NaNO <sub>2</sub>	--	178.012
		NaNO <sub>2</sub>	7632-00-0	118.75
		48% HBF <sub>4</sub>	16872-11-0	314.87
		Isopropyl alcohol	67-63-0	173.87
		Paraffin oil	8042-47-5	34.75
		Anhydrous HF	7664-39-3	21.87
69.	<b>Fluorobenzene (FB)</b>	2-Cl,5-F Nitro Benzene	345-17-5	332.75
		Pd/C	7440-05-3	1.6
		H <sub>2</sub>	1333-74-0	14.87
		Methanol	67-56-1	166.37
		15% caustic solution	1310-73-2	495.5
		Fluoroaniline	348-54-9	206.25
		30% HCl	7647-01-0	206.25
		Cu <sub>2</sub> O	1317-39-1	2.87
		IPA	67-63-0	309.37
		NaNO <sub>2</sub>	7632-00-0	103.12
		Water for NaNO <sub>2</sub>	--	206.25
		40% NaOH	1310-73-2	103.12
70.	<b>a) 1,2,4-Trifluorobenzene (1,2,4-TFB)/</b>	2,4-DFA	367-25-9	122.25
		30% HCl	7647-01-0	115.25
		Sodium nitrate	7631-99-4	0.005
		Tetrafluoro boric acid	16872-11-0	83.125
		10% NaHCO <sub>3</sub> in Water	144-55-8	28.75
	<b>b) 1,2,3-Trifluorobenzene/</b>	1,2-Dichloro-nitrobenzene	99-54-7	439.5
		Potassium fluoride	7789-23-3	119.75
		DMF	68-12-2	1360.12
		Catalyst	--	5.12
		1-Chloro-2-fluoro-nitrobenzene	350-31-2	361.62
		Chlorine	7782-50-5	131.5
		10% NaOH solution	1310-73-2	13.12
		2,6 dichlorofluoro benzene	2268-05-05	626.5
		MDC	75-09-2	611.87
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	211.5
		70% Fuming HNO <sub>3</sub>	7697-37-2	165.25
		2.5 % NaOH for washing	1310-73-2	153.00
		Potassium fluoride	7789-23-3	174.5
		2,3,4-Trifluoronitro benzene	771-69-7	266.00
		Hydrogen	1333-74-0	8.25

		Methanol	67-56-1	133.00
		Pd/C	7440-05-3	0.125
		2,3,4-Trifluoroaniline	3862-73-5	198.87
		30% HCl	7647-01-0	115.00
		Cu <sub>2</sub> O	1317-39-1	0.375
		IPA	67-63-0	206.87
		NaNO <sub>2</sub>	7632-00-0	65.25
		40% NaOH	1310-73-2	39.75
	<b>c) 1-bromo-3,4,5-Trifluorobenzene</b>	1,2-Dichloro-nitrobenzene	99-54-7	305.75
		Potassium fluoride	7789-23-3	204.62
		DMF (Solvent)	68-12-2	458.62
		TBAB	1643-19-2	3.0
		3-Chloro-2-fluoro-nitrobenzene	2106-49-2	251.5
		Chlorine	7782-50-5	91.5
		10% NaOH solution	1310-73-2	9.125
		2,6 dichlorofluoro benzene	2268-05-05	456.62
		MDC	75-09-2	425.65
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	211.5
		70% Fuming HNO <sub>3</sub>	7697-37-2	115
		2.5% NaOH for washing	1310-73-2	106.37
		DMF (Solvent)	68-12-2	487.62
		TBAB (Catalyst)	1643-19-2	0.50
		2,3,4-Trifluoronitro benzene	771-69-7	185.00
		Hydrogen	1333-74-0	5.75
		Methanol	67-56-1	92.50
		Pd/C	7440-05-3	0.125
		2,3,4-Trifluoroaniline	3862-73-5	138.37
		Bromine	7726-95-6	135.25
		MDC	75-09-2	276.62
		48% NaOH solution	1310-73-2	72.75
		6-Bromo-2,3,4-trifluoro benzenimine	--	191.25
		30% HCl	7647-01-0	72.12
		Cu <sub>2</sub> O	1317-39-1	0.375
		IPA	67-63-0	185.62
		NaNO <sub>2</sub>	7632-00-0	40.87
	40% NaOH	1310-73-2	38.25	
71.	<b>Benzotrifluoride (BTF)</b>	Toluene	108-88-3	322.36
		Chlorine gas	7782-50-5	737.15
		48% NaOH	1310-73-2	157.68
		Benzotrichloride	98-07-7	616.70
		HF	7664-39-3	354.78
		10 % NaOH solution	1310-73-2	16.20
72.	<b>Para</b>	Para chloro Toluene	106-43-4	358.74
		Chlorine gas	7782-50-5	600.06
		48% NaOH	1310-73-2	127.89
		P-chlorobenzotri	5216-25-1	587.79

	<b>ChloroBenzotrifluoride (PCBTF)</b>	chloride		
		HF	7664-39-3	277.69
		10 % NaOH solution	1310-73-2	13.14
73.	<b>Para chlorobenzotrifluoride (PCBTC)</b>	Para Chloro Toluene	106-43-4	267.18
		Chlorine gas	7782-50-5	447.19
		48% NaOH	1310-73-2	95.48
74.	<b>3-Amino benzotrifluoride (3-ABTF)</b>	BTF	98-08-8	576.84
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	1182.60
		70% Fuming HNO <sub>3</sub>	98-08-8	355.21
		10 % Na <sub>2</sub> CO <sub>3</sub> solution	497-19-8	288.64
		Nitro-BTF - mixture	98-16-8	577.28
		Pd/C	7440-05-3	0.87
75.	<b>Bromofluorobenzotrifluoride (BrFBTF)</b>	Hydrogen	1333-74-0	17.95
		3-Fluoro benzotrifluoride	401-80-9	311.41
		Bromine	7726-95-6	144.10
		Chlorine	7782-50-5	63.94
		48% NaOH to scrubber	1310-73-2	150.23
76.	<b>2 Amino 5 ChloroBenzotrifluoride</b>	NaHCO <sub>3</sub> solution	144-55-8	155.49
		3-Chlorobenzotrifluoride	98-15-7	499.32
		70% HNO <sub>3</sub>	7697-37-2	255.35
		H <sub>2</sub> SO <sub>4</sub>	7664-93-9	382.81
		2.5% Caustic solution	1310-73-2	249.66
		2-Nitro-5-chloro benzotrifluoride	777-37-7	561.07
		Ra-Ni	7440-02-0	5.69
77.	<b>3-Trifluoromethyl acetophenone</b>	Methanol	67-56-1	1122.59
		Hydrogen	1333-74-0	13.57
		3 ABTF	98-16-8	244.50
		98 % H <sub>2</sub> SO <sub>4</sub>	7664-93-9	270.00
		Sodium Nitrite 100 %	7632-00-0	114.00
		Catalyst	--	54.00
		Acetaldoxime	107-29-9	213.00
		Acetic Acid	64-19-7	30.00
		Toluene	108-88-3	576.00
		CuSO <sub>4</sub> .H <sub>2</sub> O	7758-99-8	18.00
		30 % HCl	7647-01-0	361.5
78.	<b>4-Trifluoromethyl benzyl alcohol</b>	NaOH salt	1310-73-2	250.5
		NaCl Saturate	7647-14-5	81.00
		4 Trifluoromethylbenzaldehyde	455-19-6	164.7
79.	<b>4-Trifluoromethyl</b>	Sodium borohydride	16940-66-2	32.25
		HCl	7647-01-0	31.05
		P-xylene	106-42-3	282.00
		Chlorine gas	7782-50-5	892.05
		48% NaOH	1310-73-2	99.75
		HF	7664-39-3	258.15
		10 % NaHCO <sub>3</sub>	144-55-8	235.2

	<b>benzaldehyde</b>	FeCl <sub>3</sub>	7705-08-0	1.35
		MDC	75-09-2	274.05
80.	<b>4-Fluoro3-phenoxy benzaldehyde</b>	4 Fluorobenzaldehyde	459-57-4	106.35
		Bromine	7726-95-6	123.15
		Aluminium chloride	7446-70-0.	10.65
		Dichloromethane	75-09-2	106.35
		48% NaOH solution	144-55-8	65.25
		4 Fluoro - 3 bromobenzaldehyde	--	156.45
		Ethane 1,2 Diol	107-21-1	43.05
		Catalyst	--	0.75
		Toluene	108-88-3	327.9
		4 Fluoro 3 bromobenzaldehyde protected	--	171.45
		Sodium phenate	139-02-6	80.55
		4 Fluoro 3 Phenoxy 1,1 benzdioxole	--	180.6
		Sulfuric acid	7664	68.1
		10% Sulfuric acid	7664	75
		Toluene	108-88-3	180.6
		5% NaOH solution for washing	1310-73-2	90.3
81.	<b>2,4,5-Trifluorophenyl acetic acid</b>	Trifluoro benzene	367-23-7	128.55
		Dichloro Acetyl chloride	79-36-7	127.95
		AlCl <sub>3</sub>	7446-70-0	116.85
		Methylene dichloride	75-09-2	373.65
		Thionyl chloride	7719-09-7	104.25
		Dimethyl formamide	68-12-2	90.3
		48% NaOH Solution	1310-73-2	146.1
		Formic acid	64-18-6	36.3
		Catalyst	--	0.75
82.	<b>Difluoromethanes ulfinyl chloride (DFMSC)</b>	Hydrogen	1333-74-0	7.95
		Benzyl Chloride	100-44-7	718.67
		30 % NaSH solution	16721-80-5	1201.9
		48% NaOH lye	1310-73-2	365.5
		Conc. HCl	7647-01-0	93.5
		Toluene	108-88-3	1379.12
		R-22	75-45-6	617.52
		TBAB	1643-19-2	14.45
		Chlorine Gas	7782-50-5	1069.3
		Sodium Sulphate	7757-82-6	46.75
		NaOCl 10 %	7681-52-9	425.00
83.	<b>2-Trifluoromethyl benzamide</b>	Pyrolidinone	616-45-5	36.55
		2 Methyl benzonitrile	529-19-1	460.27
		Chlorine gas	7782-50-5	765.42
		48% NaOH	1310-73-2	163.2
		AHF	7664-39-3	284.32
		MCB	108-90-7	666.82
		10 % NaHCO <sub>3</sub>	144-55-8	180.2
Methanol	67-56-1	223.55		

		NaOH	1310-73-2	111.77
84.	<b>2-(3,4-Di-fluorophenyl )-1,3-dioxalane</b>	1,2-Difluorobenzene	367-11-3	473.02
		Bromine	7726-95-6	529.97
		FeCl <sub>3</sub>	7705-08-0	23.8
		5%-Aqs. Na <sub>2</sub> CO <sub>3</sub>	497-19-8	9.35
		10% aqs.Sodium thiosulphate	7772-98-7	94.77
		MDC	75-09-2	354.87
		15-16% NaOH solution	1310-73-2	849.57
		Mg Turnings	7439-95-4	102.45
		THF	109-99-9	1680.02
		DMF	68-12-2	320.02
		Na <sub>2</sub> CO <sub>3</sub>	497-19-8.	19.12
		HCl (30%)	7647-01-0	895.9
		NaCl	7647-14-5	240.12
		Sodium Carbonate	497-19-8	23.8
		MEG	107-21-1	141.52
		Catalyst	--	4.25
				Toluene
85.	<b>2-Bromo Heptafluoropropane (BHFP)</b>	1,2 DiBromoHexafluoro Propane	661-95-0	661.3
		KF	7789-23-3	123.67
		Sulfolane	126-33-0	850.00
		Chloroform	67-66-3	85.00
86.	<b>1,2-Dibromo Hexafluoro Propane (DBHFP)</b>	HexaFluoro Propylene	116-15-4	216.75
		Bromine	7726-95-6	230.77
		Acetonitrile	75-05-08	850.00
		Sodium Thiosulphate solution	7772-98-7	85.00
87.	<b>Per FluoroVenyl Ether (PPVE)</b>	Hexafluoro propylene oxide	428-59-1	620.5
		Catalyst	--	0.425
		Acetonitrile	75-05-08	620.5
88.	<b>Bisphenol AF</b>	Hexafluoroacetone trihydrate	34202-69-2	278.37
		Phenol	108-95-2	264.35
		Methane sulfonic acid	75-75-2	310.25
		Dichloromethane	75-09-2	408.00
		Sodium bicarbonate	144-55-8	429.25
		Sodium sulphate	7757-82-6	603.5
89.	<b>Tetrafluoro propane 1234yf</b>	R-225 mixture	4786-20-3	1141.9
		Potassium Hydroxide	1310-58-3	285.6
		Catalyst	--	2.125
		Pd/C	7440-05-3	46.75
		Hydrogen	1333-74-0	28.05
		Chlorine	7782-50-5	293.675
		MDC	75-09-2	1069.3
		KOH	1310-58-3	209.1
		Catalyst	--	31.025

90.	<b>Perfluoro-1-Iodo hexane</b>	Tetrafluoroethylene	116-14-3	268.17
		Iodine Pentafluoride	7783-66-6	34.425
		Iodine	7553-56-2	78.625
91.	<b>2,6 Difluorobenzo nitrile/ 2,6-Difluoro benzamide</b>	2,6-Dichlorotoluene	118-69-4	958.375
		Ammonia	1336-21-6	198.9
		Ethylene dichloride	107-06-2	2975
		5 % Sulfuric acid	7664-93-9	31.45
		Potassium fluoride	7789-23-3	591.6
		Sulfolane	126-33-0	1700
		Tetrabutyl ammonium bromide	1643-19-2	60.35
		Sodium Bicarbonate	144-55-8	120.7
		Toluene	108-88-3	1207.425
		30% Hydrogen peroxide	7722-84-1	1159.825
		NaOH - 20% solution	1310-73-2	90.1
		92.	<b>2,4,5-Trifluoro-3-methoxy benzoyl chloride</b>	Tetrachlorophthalic anhydride
40% methyl amine solution	74-89-5			157.675
Dimethyl sulfoxide	67-68-5			1161.1
DMF	68-12-2			1214.225
Potassium fluoride	7789-23-3			471.75
Potassium hydroxide	1310-58-3			113.9
98% Sulphuric acid	7664-93-9			203.15
Dimethyl sulphate	77-78-1			505.75
Hydrochloric acid 30%	7647-01-0			246.925
Toluene	108-88-3			1011.925
48% NaOH	1310-73-2			169.15
Thionyl chloride	7719-09-7			224.825
Dimethyl formamide	68-12-2			390.15
NaOH Solution	1310-73-2	1071.42		
93.	<b>5-Amino-1-(2,6-dichloro-4-trifluoromethylphenyl)-3-cycano pyrazole (DCTFMA-Pyrazole)</b>	2,6-Dichloro-4-(trifluoromethyl) aniline	24279-39-8	338.3
		Ethyl 2,3-dicyanopropanoate	40497-11-8	201.45
		Nitrosylsulfuric acid	7782-78-7	168.3
		Dichloromethane	75-09-2	914.6
		Acetic acid	64-19-7	406.725
94.	<b>2-chlorobenzo nitrile</b>	4 - Chlorotoluene	106-43-4	662.575
		Ammonia	1336-21-6	52.7
		Ethylene dichloride	107-06-2	2975
		5 % Sulfuric acid	7664-93-9	31.45
95.	<b>4-chlorobenzo nitrile</b>	4 - Chlorotoluene	106-43-4	662.575
		Ammonia	1336-21-6	52.7
		Ethylene dichloride	107-06-2	2975
		5 % Sulfuric acid	7664-93-9	31.45
96.	<b>3,4-Dichlorobenzo</b>	3,4 - Dichlorotoluene	95-75-0	674.475
		Ammonia	1336-21-6	139.825
		Ethylene dichloride	107-06-2	2975

	<b>nitrile</b>	5 % Sulfuric acid	7664-93-9	31.45
97.	<b>2,6-Dichlorobenzo nitrile</b>	2,6-Dichlorotoluene	118-69-4	674.475
		Ammonia	1336-21-6	139.825
		Ethylene dichloride	107-06-2	2975
		5 % Sulfuric acid	7664-93-9	31.45
98.	<b>2,4-Dichlorobezo nitrile</b>	2,4-Dichlorotoluene	118-69-4	674.475
		Ammonia	1336-21-6	139.825
		Ethylene dichloride	107-06-2	2975
		5 % Sulfuric acid	7664-93-9	31.45
	<b>2,4-Difluorobenzo nitrile</b>	2,4-Dichlorobenzonitrile	6574-98-7	611.15
		Potassium fluoride (KF)	7789-23-3	598.825
		Sulfolane	126-33-0	1700
		Tetrabutyl ammonium bromide	1643-19-2	61.2
		Sodium Bicarbonate	144-55-8	122.4
		Toluene	108-88-3	1222.3
99.	<b>3-(Difluoromethyl)-1-methyl-1H-pyrazole-4-carboxylic acid (Pyrazole acid)</b>	1,1,2,2-tetrafluoro-N,N-dimethylamine	1550-50-1	350.2
		Methyl 3-methoxyacrylate	34846-90-7	280.075
		BF <sub>3</sub> - Etherate	109-63-7	100.3
		Acetonitrile	75-05-08	407.15
		40 % Methyl hydrazine solution	60-34-4	277.95
		Methanolic NaOH solution	1310-73-2	100.3
		Toluene	108-88-3	407.15
100.	<b>TriethylOrthoformate</b>	Ethanol	64-17-5	376.68
		Cyclohexane	110-82-7	1040.256
		Chloroform	67-66-3	452.274
		NaOH	1310-73-2	704.082
101.	<b>2,4-Difluorobenzylamine</b>	2,4-Dichlorobenzonitrile	6574-98-7	480.138
		Potassium Fluoride	7789-23-3	433.182
		Dimethyl Formamide	68-12-2	1812.966
		TBAB	1643-19-2	23.994
		Methanol + Ammonia	67-56-1 +1336-21-6	504.39
		Raney Ni	7440-02-0	17.802
		H <sub>2</sub> Gas	1333-74-0	10.836
102.	<b>3,4-Dichloro-6-(trifluoromethyl) Toluene</b>	3,4-Dichlorotoluene	95-75-0	402.738
		Aluminium chloride	7446-70-0.	676.476
		Carbon tetrachloride	865-49-6	2415.912
		MCB	108-90-7	319.92
		AHF	7664-39-3	67.596
		10 % NaHCO <sub>3</sub>	144-55-8	159.96
103.	<b>3,4-Difluoronitro benzene</b>	1,2-Difluorobenzene	367-11-3	205.626
		MDC	75-09-2	82.302
		98% H <sub>2</sub> SO <sub>4</sub>	7664-93-9	351.654
		70% Fuming HNO <sub>3</sub>	7697-37-2	170.538
		10% NaHCO <sub>3</sub>	144-55-8	25.8

		washing		
104.	<b>Tetrafluoro ethyl dimethyl amine (TFEDMA)</b>	Dimethyl amine	109-89-7	187.05
		Tetrafluoroethylene	116-14-3	80.238
105.	<b>4-Fluoro nitrobenzene</b>	4-Chloro nitrobenzene	100-00-5	320.178
		KF	7789-23-3	118.164
		Sulfolane	126-33-0	1161
		TBAB	1643-19-2	2.58
106.	<b>4-Fluoro Aniline</b>	4-Fluoro nitrobenzene	350-46-9	364.038
		Pd/C	7440-05-3	2.064
		Methanol	67-56-1	258
		Hydrogen	1333-74-0	13.932
107.	<b>5-Fluorocytocine</b>	Acetonitrile	75-05-08	90.558
		Methyl formate	107-31-3	132.354
		Sodium Methoxide	124-41-4	152.22
		Toluene	108-88-3	181.116
		Urea	57-13-6	119.196
		Methanol	67-56-1	405.834
		HCl (35%)	7647-01-0	241.488
		Acetic anhydride	108-24-7	791
		Bromine	7726-95-6	1238
		11-12% NaOH Solution	1310-73-2	2564
		Potassium fluoride	7789-23-3	116.1
		DMSO	67-68-5	927.252
		Sodium hydroxide	1310-73-2	79.98
				Carbon
108.	<b>Fipronil</b>	2,6-Dichloro-4-(trifluoromethyl) aniline	24279-39-8	583
		Ethyl 2,3-dicyanopropanoate	40497-11-8	347
		Nitrosylsulfuric acid	7782-78-7	290
		Dichloromethane	75-09-2	2152
		Acetic acid	64-19-7	957
		Disulfur dichloride	10025-67-9	39.732
		Chlorobenzene	108-90-7	188.856
		Trifluoromethyl bromide	402-49-3	87.978
		Dimethyl formamide	68-12-2	207.948
		20 % NaOH solution	1310-73-2	28.122
		14-15% NaOH Solution for scrubber	1310-73-2	1.548
		Hydrogen peroxide	7722-84-1	20.124
		Chlorobenzene	108-90-7	497.166
109.	<b>Sulfentrazone Intermediate and sulfintrazone</b>	Phenyl hydrazine	100-63-0	70.692
		Acetaldehyde	75-07-0	29.412
		Sodium cyanide	143-33-9	32.766
		Sodium hypochlorite 30% sol	60577-30-2	165.378
		Tert. Butanol	75-65-0	152.22

		Chlorine	7782-50-5	94.428
		Dimethyl formamide	68-12-2	469.30
		Chlorodifluoro methane (R-22)	75-45-6	57.534
		Potassium carbonate	584-08-7	66.564
		NaOH solution	1310-73-2	275.802
		Nitric acid	7697-37-2	47.214
		Sulphuric acid	7664-93-9	65.016
		Dichloromethane	75-09-2	520.902
		IPA	67-63-0	452.016
		Pd/C	7440-05-3	0.516
		Hydrogen	1333-74-0	3.87
		Toluene	108-88-3	514.968
		Pyridine	110-86-1	25.8
		Sulfonyl chloride	7791-25-5	76.368
110.	<b>Carfentrazone intermediates and Carfentrazone</b>	2-Fluoroaniline	348-54-9	86.688
		Sodium nitrite - 40%	7632-00-0	107.586
		Sodium sulfite - 25%	7632-00-0	260.064
		48% NaOH solution	1310-73-2	52.116
		HCl - 30%	7647-01-0	75.852
		Acetaldehyde	75-07-0	26.832
		Sodium cyanide	143-33-9	30.702
		Sodium hypochlorite 30% soln	60577-30-2.	152.994
		Tert. Butanol	75-65-0	157.38
		Chlorine	7782-50-5	88.75
		Dimethyl formamide	68-12-2	404.53
		Chlorodifluoro methane (R-22)	75-45-6	53.922
		Potassium bicarbonate	298-14-6	62.436
		NaOH solution - 10%	1310-73-2	499.488
		Nitric acid	7697-37-2	44.376
		Sulphuric acid	7664-93-9	61.146
		Dichloromethane	75-09-2	346.494
		10% NaOH washing	1310-73-2	173.376
		IPA	67-63-0	402.738
		Pd/C	7440-05-3	0.258
		Hydrogen	1333-74-0	3.87
		Acetonitrile	75-05-08	438.6
		Ethyl Acrylate	140-88-5	62.436
111.	<b>Potassium Fluoride (KF)</b>	KF + KCl	7789-23-3+ 7447-40-7	104.244
		18% H <sub>2</sub> SiF <sub>6</sub>	16961-83-4	502.532
		SiO <sub>2</sub>	7631-86-9	12.556
		K <sub>2</sub> SiF <sub>6</sub>	16871-90-2	184.544
		45% KOH	1310-58-3	417.56
112.	<b>Lithium hexafluorophosphate (LiPF<sub>6</sub>)</b>	Lithium carbonate	554-13-2	70.956
		AHF	7664-39-3	230.68
		Phosphorus penta chloride	10026-13-8	400.332
		Acetonitrile	75-05-08	584

		48% NaOH solution	1310-73-2	960.096
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**2.8 Raw material sources**

The company will purchase raw materials from local and / or import depends on availability and market value.

**2.9 Market area of finished products**

The application for the said products has been done in the view of market demand. The same products would be consumed at domestic level as well as export to various countries as per market demand.

**2.10 Mode of transportation of raw material and products**

The required raw material for the manufacturing of proposed products will be transported by either sea or road and in case of products it would be transported by either sea or road/air-ways and also the same will be depend upon the availability / comfort ability.

**2.11 Recycle/reuse options**

Water reuse/ recycling arrangements has already been provided for water conservation.

**2.12 Quantity of waste to be generated along with its mode of disposal**

The type, quantity and mode of disposal of solid / hazardous wastes generated from the proposed plant are given below:

**Table 3: Hazardous/ Solid waste generation details**

Sr. No.	Type of Waste	Category as per HW Rules*	Quantity	Mode of Disposal
<b>HAZARDOUS WASTE</b>				
1.	Spent Catalyst, Activated Carbon	17.2	35 MT/Month	Collection, Storage Transportation and disposal at SPCB approved Common TSDF/Common Incineration, Co-processing facility/Actual end user.
2.	Process Waste/ Distillation Residue/Organic Residue	36.1	2346 MT/Month	Collection, Storage Transportation and disposal at SPCB approved Common TSDF/Incineration/Co-processing facility/Actual end user/Recovery by a SPCB authorized registered recycler
3.	ETP Sludge from Wastewater Treatment	35.3	237 MT/Month	Collection, Storage Transportation and disposal at SPCB approved Common TSDF/Incineration/Co-processing facility/Actual end user.
4.	PTFE Residue	1.4	131 MT/Month	Collection, Storage Transportation and disposal at SPCB approved Common

				TSDf/Incineration/Co-processing facility/Actual end user.
5.	Used Oils	5.1	7 MT/Month	This used lubricating oil will be collected in drums and stored for sale to registered re-refiner.
6.	Discarded Carboys/Drums	33.1	2 MT/Month	Discarded carboys and drums will be sold to recycler.
7.	Spent Resin	20.3	25 MT/Annum	Collection, Storage Transportation and disposal at SPCB approved Common TSDf/Incineration/Co-processing facility/Actual end user.
8.	Sludge from Wet Scrubber	35.3	2 MT/Annum	Collection, Storage Transportation and disposal at SPCB approved Common TSDf/Incineration/Co-processing facility/Actual end user.

Sr. No.	Type of Waste	Category as per HW Rules*	Quantity	Mode of Disposal
<b>NON-HAZARDOUS WASTE</b>				
1.	Glass Wool/ Insulation Waste	-	12.5 MT/Month	Collection, storage, transportation and disposal at SPCB approved common TSDf site.
2.	Fly Ash	-	60-65 MT/Day	Disposal as per Fly Ash Management Rule, 2009. Selling ash to cement plant / brick making industries and filling in low lying area.
3.	Brine Sludge	-	200 MT/Month	Collection, Storage Transportation and disposal at own SLF Site/3 <sup>rd</sup> party TSDf Site.

- Other waste like E-Waste and Battery Waste that will be generated from plant operations will be managed as per E-Waste (Management) Rules, 2016 and Batteries (Management and Handling) Amendment Rules, 2010 and MoEFCC Notification /CPCB guidelines for handling of fly ash.
- Membership of M/s. Bharuch Enviro Infrastructure Limited (BEIL) has been obtained for the disposal of existing hazardous waste quantity and for the proposed quantity; membership of M/s. Ecocare Infrastructures Pvt. Ltd has been acquired. Membership Certificates of CHWIF/TSDf are attached here.

#### 4 Site Analysis

**Table 4: Details of site analysis**

Point	Description
<b>4.1 Connectivity</b>	<ul style="list-style-type: none"> <li>▪ The proposed product manufacturing plant is to be set-up within industrial area located at D-2/CH-173 &amp; CH-222, Dahej GIDC-2, Nr. Village Galenda, City: Galenda, Dist: Bharuch, Taluka: VagraDist: Bharuch. Existing roads and rails will be used for the proposed project. No new</li> </ul>

	<p>roads or rails are envisaged outside the boundary of the plant.</p> <ul style="list-style-type: none"> <li>▪ 128 km from Surat Domestic Airport &amp; 126 km from Vadodara Domestic Airport.</li> </ul>
<p><b>4.2 Land use pattern</b></p>	<ul style="list-style-type: none"> <li>▪ Proposed project will be established within the plot of Dahej SEZ which has been set-up for industrial purposes.</li> </ul>
<p><b>4.3 Land ownership</b></p>	<ul style="list-style-type: none"> <li>▪ On GIDC Lease</li> </ul>
<p><b>4.4 Existing infrastructure</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Land:</b> 464145.25 sq. m</li> <li>▪ <b>Utilities:</b> Power requirement of for the proposed plant will be met by GEB/ DGVCL and Captive Power Plant. <ul style="list-style-type: none"> <li>○ <b>Water:</b> GIDC water supply.</li> <li>○ <b>Fuel:</b> Natural gas, LDO, HSD, Coal and Diesel.</li> <li>○ <b>Power:</b> GEB/DGVCL and Captive Power Plant. However in case of power failure, D.G. set will be used as source of power back-up.</li> </ul> </li> <li>▪ <b>Transport:</b> <ul style="list-style-type: none"> <li>○ <b>Rail:</b> The nearest broad gauge railhead is Bharuch.</li> <li>○ <b>Road:</b> The proposed plant is connected to Bharuch by road routes. The distance from the plant to Bharuch is about 42 Km.</li> <li>○ <b>Air:</b> The nearest domestic airport is available at Surat (128 km).</li> </ul> </li> <li>▪ <b>Communication:</b> <ul style="list-style-type: none"> <li>○ All facilities are available i.e. Telephone, Fax, Internet etc.</li> </ul> </li> </ul>
<p><b>4.5 Soil classification</b></p>	<ul style="list-style-type: none"> <li>▪ The characteristic of soil of the proposed location is fine soils with slight erosion and strong salinity.</li> </ul>
<p><b>4.6 Climatic data from secondary sources</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Temperature:</b> <ul style="list-style-type: none"> <li>▪ Maximum: 47.8°C</li> <li>▪ Minimum : 4°C</li> </ul> </li> <li>▪ <b>Rainfall:</b> <ul style="list-style-type: none"> <li>▪ Average (annual) : 954.6 mm</li> <li>▪ Number of days per year : 42.9 days</li> </ul> </li> <li>▪ <b>Relative Humidity (%):</b> <ul style="list-style-type: none"> <li>▪ Maximum: 74%</li> <li>▪ Minimum : 46%</li> </ul> </li> <li>▪ <b>Wind Speed:</b> <ul style="list-style-type: none"> <li>▪ Avg. wind speed: 8.7 kmph.</li> </ul> </li> </ul> <p><i>Source: Climatological Tables, India Meteorological Department.</i></p>

## 5 Planning Concept

Table 5:Details of planning concept

Point	Description
5.1 Planning concept	▪ Not applicable since proposed project is to be set-up within the GIDC notified industrial estate.
5.2 Population projection	
5.3 Land use planning	
5.4 Assessment of infrastructure demand (physical & social)	
5.5 Amenities / facilities	

## 6 Proposed Infrastructure

**Table 6: Details of infrastructure facilities**

<b>Point</b>	<b>Description</b>
<b>6.1 Industrial area (processing area)</b>	<ul style="list-style-type: none"> <li>▪ The proposed project is to be set-up in DahejGIDC Area.</li> <li>▪ Total land area is 464145.25 m<sup>2</sup>.</li> </ul>
<b>6.2 Residential area</b>	<ul style="list-style-type: none"> <li>▪ Not applicable</li> </ul>
<b>6.3 Green belt area</b>	<ul style="list-style-type: none"> <li>▪ Green Belt area is developed in accordance with Environmental Clearance.</li> </ul>
<b>6.4 Social infrastructure</b>	<ul style="list-style-type: none"> <li>▪ The proposed project will be set up within existing industrial estate.</li> </ul>
<b>6.5 Connectivity (traffic &amp; transportation road/ rail metro/ water ways)</b>	<ul style="list-style-type: none"> <li>▪ No new road, rail, air/waterborne or other transport infrastructure including new or altered routes and stations are envisaged for the proposed plant. Existing transportation facilities available within the industrial area are enough to take care of the increasing traffic.</li> </ul>
<b>6.6 Drinking water management (source and supply of water)</b>	<ul style="list-style-type: none"> <li>▪ GIDC Water supply system.</li> </ul>
<b>6.7 Sewerage system</b>	<ul style="list-style-type: none"> <li>▪ Well-developed sewerage system provided. Sewage (domestic effluent) will be discharged into the Septic tank/Soak Pit System.</li> </ul>
<b>6.8 Industrial waste management</b>	<ul style="list-style-type: none"> <li>▪ <b><u>Water Pollution :</u></b> <ul style="list-style-type: none"> <li>○ Effluent will treated in our effluent treatment plant and finally discharged in GIDC drainage.</li> </ul> </li> <li>▪ <b><u>Air Pollution :</u></b> <ul style="list-style-type: none"> <li>○ Flue Gas Emission: Please refer <b>Annexure-10</b> of Form-1.</li> <li>○ Process Gas Emission: Please refer <b>Annexure-10</b> of Form-1.</li> </ul> </li> <li>▪ <b><u>Solid &amp; Hazardous waste :</u></b> <ul style="list-style-type: none"> <li>○ Quantity of generated solid/ hazardous wastes will be properly managed and disposed.</li> </ul> </li> </ul>
<b>6.9 Power requirement &amp; supply/source</b>	<ul style="list-style-type: none"> <li>▪ Source of power supply is GEB/ DGVCL and Captive Power Plant.</li> <li>▪ However in case of power failure, D.G. set will be used as source of power back-up.</li> </ul>

## **7 Rehabilitation and Resettle (R& R) Plan**

### **7.1 Policy to be adopted ( Central /State) in respect of the project affected persons including home oustees, land oustess and landless laborers a brief outline to be given)**

- Not applicable, since proposed project is to be established within existing plant premises located at notified industrial estate.

## **8 Project Schedule & Cost Estimation**

### **8.1 Likely date of start of construction and likely date of completion (Time schedule for the project to be given)**

- Proposed date of start of construction and machine erection/ installation: After getting Environment Clearance from SEIAA and No Objection Certificate from the GPCB.
- Date of completion: It would be approximately 9-18 months from the date of start construction and other activities.
- Proposed date of start production: After getting the statutory required Consent & Authorization from the GPCB.

### **8.2 Estimated project cost along with analysis in terms of economic viability of the project.**

- Estimated project cost: total estimated cost of the proposed project would be Rs.1100 Crores, details are as summarized under:-

## **9 Analysis of Proposal (final recommendations)**

### **9.1 Financial and social benefits with special emphasis on the benefit to the local people including tribal population (if any, in the area)**

- Financial and social benefits with special emphasis on the benefit to the local people including tribal population (if any, in the area) are summarized under.
- The Proposed budget for activities under Corporate Environment Responsibility (CER)/ Enterprise Social Commitment (ESC)/ Corporate Social Responsibility (CSR) is about 0.25 % of the total project cost.