

CCVL/TNPCB/0728
September 23, 2022

**The District Environmental Engineer
Tamil Nadu Pollution Control Board
No.A3 SIPCOT Industrial Complex
Kudikadu, Cuddalore – 607 005**

Cuddalore Plant:

SIPCOT Industrial Complex Phase II
Semmankuppam Cuddalore 607 005 India
Tel + 91 4142 239 280

E-mail: csl@sanmargroup.com

www.chemplastsanmar.com

CIN U24100TN1991PLC020589

Dear Sir,

Sub: Chemplast Cuddalore Vinyls Limited, SIPCOT Industrial Complex, Cuddalore
– Submission of Form V – Environmental Statement 2021-2022 – Reg.

We herewith enclose the Environmental Statement – Form V for the year 2021 -2022 under
Rules 14 of the Environmental (Protection) Rules 1989 for your perusal and records.

Thanking you and assuring our best co-operation at all times,

Yours faithfully,

For Chemplast Cuddalore Vinyls Limited,



N.Palanisamy
Senior Vice President - Operations

Copy to: The Member Secretary
Tamil Nadu Pollution Control Board
76 Anna Salai, Guindy,
Chennai –600032.

Additional Chief Conservator of Forest
Ministry of Environment & Forests and Climate Change
Regional Office (SEZ)
1st and IInd Floor, Handloom Export Promotion Council,
34 Cathedral Garden Road, Nungambakkam,
Chennai – 600034.

Encl: As above



Regd Office: 9 Cathedral Road Chennai 600 086 India

**Chemplast Cuddalore Vinyls Limited, SIPCOT Industrial Complex Phase II,
Semmankuppam, Cuddalore 607005**

FORM – V
(See Rule – 14)

**ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR ENDING
THE 31ST MARCH 2022**

PART - A

(i)	Name and address of the owner / occupier of the Industry operation or process.	Mr. Ramkumar Shankar Chemplast Cuddalore Vinyls Limited SIPCOT Industrial Complex Phase II Semmankuppam Village Cuddalore – 607 005.
(ii)	Industry Category Primary: - (STC Code) Secondary:- (SIC Code)	1011
(iii)	Production Capacity	PVC Resins: 3,00,000 TPA.
(iv)	Year of Establishment	September 2009.
(v)	Date of the last Environmental Statement submitted	09 th Sep' 2021



**Chemplast Cuddalore Vinyls Limited, SIPCOT Industrial Complex Phase II,
Semmankuppam, Cuddalore 607005**

PART – B

WATER AND RAW MATERIAL CONSUMPTION

(i) Water Consumption (KLD)

Process	:	1644
Cooling	:	1533
Domestic	:	11.4

Name of Products	Process Water Consumption Per Unit of Product output					
	During the previous financial year (2020-2021)			During the current financial year (2021-2022)		
	Fresh Water KL/MT	Recycled Water KL/MT	Total Water KL/MT	Fresh Water KL/MT	Recycled Water KL/MT	Total Water KL/MT
PVC Resin	2.03	1.93	3.96	2.02	1.88	3.90

(ii) Raw Material Consumption:

Name of Raw Material	Name of Products	Consumption of Raw material per unit of Output	
		During the current financial year (2020-2021)	Current financial year (2021- 2022)
Vinyl Chloride Monomer (VCM)	PVC Resin	1.00297	1.00296



**Chemplast Cuddalore Vinyls Limited, SIPCOT Industrial Complex Phase II,
Semmankuppam, Cuddalore 607005**

PART - C
POLLUTION DISCHARGED TO ENVIRONMENT / UNIT OF OUTPUT
(Parameter as specified in the consent issued)

Since the Unit adopted ZLD system, the entire trade effluent ,recycled and reused for its process use ,No pollution discharged to environment .

(a) Water: (Analysis carried out by AEL, TNPCB, Cuddalore)

Sl. No.	Pollutants	Quantity of Pollutants Discharged, (mass / day) (Kg/Day)	Concentrations of Pollutants in ZLD RO permeate (mass / volume) (mg/Lit)	Percentage of Variation from Prescribed Standards with reasons
1.	pH	Unit adopted Zero Liquid Discharge System (ZLD).	6.96	No variation
2.	Total Suspended Solids		BDL	
3.	Total Dissolved Solids		392	
4.	Chlorides		45.7	
5.	Sulphate		25.25	
6.	Oil & Grease		BDL	
7.	BOD		BDL	
8.	COD		BDL	
9.	Sulphide		BDL	
10.	Fluoride		BDL	
11.	Ammonical Nitrogen		BDL	
12.	Hexa.Chromium		BDL	
13.	Total Chromium		BDL	
14.	Nickel		BDL	
15.	Zinc		0.04	
16.	Lead		BLQ	
17.	Cadmium		BLQ	



**Chemplast Cuddalore Vinyls Limited, SIPCOT Industrial Complex Phase II,
Semmankuppam, Cuddalore 607005**

PART - C

Pollution Discharged to Environment / Unit of output

(Parameter as specified in the consent issued)

(b) Air: (Stack Monitoring carried out by AEL, TNPCB, Cuddalore)

Sl. No.	Description of Chimney/Stack	Concentration of Pollutants discharged, mass / volume (mg / Nm ³)			Quantity of Pollutants discharged mass/day (Kg/day)		
		SPM	SO ₂	NO _x	SPM	SO ₂	NO _x
1.	Boiler – 38 TPH	18.27	74.60	174.28	23.00	87.77	209.91
2.	Coal Crusher	47.5	-	-	5.7	-	-
3.	Coal Bunker	39.0	-	-	3.6	-	-
4.	PVC Dryer	47.0	-	-	68.5	-	-
5.	De-Dusting unit - A	45.0	-	-	1.96	-	-
6.	De-Dusting unit – B	45.5	-	-	2.04	-	-
7.	De-Dusting unit - C	46.0	-	-	2.1	-	-
8.	Silo - A	54.0	-	-	5.0	-	-
9.	Silo – B	53.0	-	-	4.9	-	-
10.	Silo - C	46.0	-	-	5.3	-	-



**Chemplast Cuddalore Vinyls Limited, SIPCOT Industrial Complex Phase II,
Semmankuppam, Cuddalore 607005**

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management, Handling and Transboundary Movements) Rules, 2016)

Sl. No.	Hazardous Wastes	Total Quantity (MT)	
		During the Previous financial year (2020-2021)	During the current financial year (2021-2022)
(a) <u>From Process</u>			
1.	Spent / Used Oil	3.02 Tons	1.386
2.	PVC Lumps	Nil	Nil
(b) <u>From Pollution Control Facilities</u>			
1.	ETP sludge	58.08 Tons	54.18
2.	Evaporator solids	129.61 Tons	143.45
3.	Desalination plant sludge	547.49 Tons	122.07

**PART - E
Solid Wastes**

Solid Wastes	Total Quantity (MT)	
	During the Previous financial year (2020-2021)	During the current financial year (2021-2022)
(a) From Process	-	-
(b) From Pollution Control facility Fly ash from Boiler	1718.6	2071.22
(c) 1. Quantity recycled or reutilized within the unit	-	-
2. Sold	1718.6	2071.22
3. Disposed	-	-



**CHEMPLAST CUDDALORE VINYLs LIMITED , SIPCOT INDUSTRIAL
COMPLEX PHASE – II, SEMMANKUPPAM, CUDDALORE – 607 005.**

PART – F

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

- The generated waste oil sold to TNPCB authorized recyclers as per authorization condition and sludge from waste water treatment sent to TNPCB authorized TSDF facility, Gummidipoondi, Chennai.
- The Fly Ash generated from Boiler Unit Collected through dedicated ESP with 99 % efficiency and stored in fly ash silo is being sent to nearby cement factories.
- The Used Spent Oil disposed to TNPCB authorized recyclers .

Sl. No.	Parameters	Hazardous Wastes			
		PVC Lumps	ETP sludge	Evaporator solids	Desalination plant sludge
1.	Solid / Semi- Solid / Slurry or Sludge	Solid	Sludge	Solid	Sludge
2.	Loss on Drying @105 Degree	Free from moisture	40.51 %	Moisture-93%	45.4 %
3.	% of water soluble	Insoluble in water	In Organic :<1 Organic : 2.1	In Organic :<46.2 Organic : 1.5	In Organic :<0.54 Organic: 0.24
5.	Bulk density/ specific gr.	0.56 gm/cc	1.2 gm/cc	1.31 gm/cc	1.31 gm/cc
6.	Paint Filler Liquid Test	Not Applicable	Pass	Pass	Pass
7.	Calorific value	5054 (Kcal/kg)	<200 (Kcal/gm)	< 200 (Kcal/gm)	1321 (Kcal/gm)
8.	pH at 29.6 Deg	6.12	8.01	8.62	6.84
9.	Loss of Ignition at 550 Deg C	89.3 %	32.91 %	9.06 %	18.1 %
10.	Composition of matter	Extractable Organics < 1% Water soluble inorganic 0.14% Water soluble organics 0.20% Total Fluoride <0.1% Total Chloride 35.2%	Water soluble organics <1% Water soluble inorganic <0.1% Total Fluoride – <1 Lead (WLT) – 0.37mg/l Nitrate Nitrogen (WLT)– 22.55 mg/l Cadmium (WLT):<0.1	Water soluble organics 1.50% Water soluble inorganic 46.2% Fluoride (WLP) – <1 Total Chloride – NA Lead (WLT)– <0.1 mg/l Nitrate Nitrogen – 2.75 mg/l Cadmium (WLT)<0.1 mg/lit	Water soluble organics 0.54% Water soluble inorganic 0.24% Fluoride WLT – <1 mg/lit Total Chloride – NA Lead WLT – <0.1 mg/l Nitrate Nitrogen WLT– 20.5 mg/l Cadmium (WLT) :<0.1mg/lit
11.	Mode of Disposal	Incineration at TSDF, Gummidipondi site	Safe disposal to TSDF, Gummidipondi site	Safe disposal to TSDF, Gummidipondi site	Safe disposal to TSDF, Gummidipondi site



**CHEMPLAST CUDDALORE VINYLs LIMITED , SIPCOT INDUSTRIAL
COMPLEX PHASE – II, SEMMANKUPPAM, CUDDALORE – 607 005.**

PART - H

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

CHEMPLAST CUDDALORE VINYLs LIMITED, SIPCOT PHASE II			
SEMMANKUPPAM VILLAGE, CUDDALORE - 607 005.			
Environmental Protection Expenditure for the year 2021-22			
Sl.No.	Description	Details	Amount in Rs.
1	Operation Expenditure for ZLD and STP operation.	Desal , ZLD plant operation cost (chemicals, manpower etc).	33609996
2	Environmental Monitoring Expenditure	a. AAQ/Stack, LDAR & VOC & S-VOC Monitoring through MoEF approved lab	1390842
		b. Equipment procurement for Environmental Monitoring/Protection	2099849
		c. TNPCB Water Quality Monitoring charges	19990
		d. TNPCB AAQ Monitoring charges	618800
3	Expenditure incurred on hazardous waste handling and disposal	Hazardous waste safe disposal	2082277
		Flyash Disposal	1372336
4	Expenditure incurred on Environmental Improvement	Marine Impact Study, Environment Audit & other environmental improvement activity	355000
5	Expenditure towards Statutory Compliance of Environmental Aspects	a. Consent Fee	1330432
		b. PLI	10200
		c. Green Belt Development	3182299
6	Implementation of ISO System	ISO Audit fee	400380
Total Cost in INR			46652400.75

PART - I

Miscellaneous

Any other particulars for improving the quality of the environment

The details of green belt development are given below:

Various plans have been devised and implemented to reduced the impact of the activities on the surrounding areas and its natural environment. Some of them are as follows:



**CHEMPLAST CUDDALORE VINYLs LIMITED , SIPCOT INDUSTRIAL
COMPLEX PHASE – II, SEMMANKUPPAM, CUDDALORE – 607 005.**

❖ Factory Area	: 27.3 Hec
❖ Green Belt Development requirement	: 9.0 Hec
❖ Number of trees covered in 9.0 Hec	: > 26000 nos

