

Project Profile

1. **Product** : **Disinfectant Fluids
(Phenolic Type)**
2. **NIC Code (2008)
(Based on NIC-2008)** : **20212**
3. **Product Code
(Based on NPCMS-2011)** : **3465900**
4. **Production Capacity** : **300 K.L. per Annum.
(Valued Rs. 264 lakhs)**
5. **Month & year of Preparation** : **June, 2020**
6. **Prepared by** : **MSME-DI, Raipur**

Government of India

Ministry of Micro, Small & Medium Enterprises

MSME-Development Institute

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1. INTRODUCTION OF THE PRODUCT :

These are homogeneous solutions of Coal tar acids or similar acids derived from petroleum with or without hydrocarbons or other phenolic compounds including substituted phenolic compounds or a mixture of these or a suitable emulsifier. It is black in colour and on dilution with water it gives translucent off white colour. It contains Monochlorophenol (MCP) whose RWC (Rideal Walker Constant) value is about 50- 60 or Chloro Xylenol whose RWC value is about 100 – 120. Higher the RWC of the product, better is the quality.

2. PLANT CAPACITY PER ANNUM: 300 K.L PER ANNUM.

3. MARKET & DEMAND ASPECTS :

It is used in our houses, Government as well as private hospitals, public places etc. Being disinfectant and also having germicidal value, it is highly demanded product particularly in hospitals.

4. BASIS AND PRESUMPTIONS :

- a. The scheme is based on single shift of 8 hours per day and 300 working days per annum.
- b. The interest rate on the borrowed capital has been taken as 12 % per annum.
- c. The cost in respect of Raw Materials, Packing Materials, Machinery & Equipments has been taken at the time of preparation of project profile and may vary from place to place and time to time.
- d. The rental Value of production shed is taken as per the prevailing rates and and may vary from place to place.
- e. The plant capacity utilization has been taken as 50 % for the first year, which may subsequently increase to 60% and 70% in the second and third year respectively.

5. IMPLEMENTATION SCHEDULE :

The project implementation will take about nine months. The break-up of activities with relative time for each activity is as follows:

Sl. No.	Activity	Estimated Time Period (Months)
01.	Scheme preparation & approval	0 – 2
02.	Registration under MSME Act 2006 and sanction of loan	1 - 2
03.	License from FDA	3 - 4

04.	Placement of Orders for Machines	2 - 3
05.	Power Connection	1 - 2
06.	Installation of Machines	3 - 4
07.	Recruitment of Staff & Trial run	4 – 5
08.	Commercial Production	6 TH onwards.

6. LEGAL ASPECTS :

The product is covered under the Drug Control Act and all specifications laid down their in are to be complied with.

The general requirements for obtaining Drug License are as under :

- a. Land and Plant Layout.
- b. Proof of Ownership of Land of Consent letter of owner, if the land is taken on rent .
- c. Copy of Memorandum of articles of association or partnership deed, list of Directors etc. as the case may be.
- d. Photocopy of the packing materials specimen.
- e. Clearance from State Pollution Control Board.

7. TECHNICAL ASPECTS :

- a. **PRODUCTION CAPACITY** : **300 K.L. per Annum.**
- b. **QUALITY CONTROL & STANDARDS** : **IS 1061 : 2017**

Each class of disinfectant fluid shall be of 6 grades depending upon Rideal Walker (RW) and Staphylococcal (SA) coefficient by rules as given below :

Class	Grade	Rideal Walker (RW) Coefficient, Min.	Staphylococcal (SA) coefficient, Min.
Black	1	18	--
	2	10	--
	3	5	--
	1A	18	8
	2A	10	5
	3A	5	2.5
White	1	18	--
	2	10	--
	3	5	--
	1A	18	8
	2A	10	5
	3A	5	2.5

Requirement of Staphylococcal (SA) coefficient has been given to ensure that disinfectant fluids are not unduly selective in their germicidal properties.

C. MANUFACTURING PROCESS :

The general formulation of the product may be as under:

Sr. No.	Raw Material	Quantity (%)
01.	Rosin	05.0
02.	Castor Oil	20.0
03.	MCP (Mono Chloro Phenol)	10.0
04.	Creosote Oil	13.0
05.	Caustic Soda	04.0
06.	Water	Balance

First we take Rosin & Castor Oil in saponification vessel and heat it up to 70°C. Now we add caustic soda solution in to it slowly with continuous stirring till golden colour soap is produced. Stop heating and add balance quantity of warm water with stirring till solution is uniform. Allow it to come at room temperature. Now add MCP and creosote oil with slow stirring. Filter if required and pack. Chloro – Xylenol can be used as a substitute for MCP.

8. FINANCIAL ASPECTS :

Sr. No.	Description	Quantity	Value (Rs.)
(a)	Land & Building		
	Covered area of 500 Sq. Mtrs. on rent	L.S.	20,000
(b)	Machinery & Equipments		
01.	M.S. Saponification Vessel, Cap: 100 Ltrs. Per batch.	1 No.	20,000
02.	M.S. Mixing vessel, Cap:250 Ltrs per batch	1 No.	50,000
03.	M.S. Storage tank	3 Nos.	70,000
04.	Automatic Filling Machine	1 No.	80,000
05.	Automatic Sealing Machine	1 No.	20,000
06.	Shrinking Machine	1 No.	75,000
07.	Other Misc Equipments	L.S.	28,000
08.	Laboratory Equipments	L.S.	60,000
09.	Installation of Machinery & equipments @ 10% of the cost.		40,300
10.	Preoperative Expenses	L.S.	25,000
		Total	4,68,300
		Or say	4,68,000

(c) Raw & Packing Materials per Month:

Sr. No.	Description	Rate	Quantity	Value (Rs.)
01.	Rosin	Rs.140/Kg.	625 Kg.	87,500
02.	Castor Oil	Rs.90/Kg	2500 Kg.	2,25,000
03.	MCP	Rs.200/Kg.	1250 Kg.	2,50,000
04.	Creosote Oil	Rs.85 /Kg.	1625 Kg.	1,38,125
05.	Caustic Soda	Rs.50 / Kg.	500 Kg.	25,000
06.	Water	L.S.	6000 Kg.	6,000
07.	Packing Materials viz. Bottles, Master Cartons, Bopp Tape etc.	L.S.		80,000
			Total	8,11,625

(d) Salary & Wages per Month :

Sr. No.	Description	Nos.	Value (Rs.)
01.	Manager	01	14,000
02.	Supervisor / Chemist	01	12,000
03.	Semi – skilled labour	03	16,000
04.	Unskilled labour	06	42,000
		Total	84,000

(e) Utilities per Month :

Sr. No.	Description	Rate	Quantity	Value (Rs.)
01.	Power	Rs.4.75/unit	20 HP	13,750
02.	Fuel & Lubricants		L.S.	3,000
03.	Water		L.S.	2,000
			Total	18,750

(f) Other Expenses per Month :

Sr. No.	Description	Quantity	Value (Rs.)
01.	Rent	L.S.	20,000
02.	Postage & Stationery	L.S.	1,500
03.	Telephone	L.S.	500
04.	Repair & Maintenance @ Rs.600 per KL		7,500

05.	Insurance @ 2% of Machinery & Equipment Cost		672
06.	Marketing & Traveling Expenses	L.S.	12,000
07.	Other Misc. Expenses	L.S.	2,000
		Total	44,172

(g)	Working Capital for One Month (c+d+e+f)	:	9,58,547
(h)	Working Capital for three Months	:	28,75,641
		Or say	28,76,000
(i)	Total Capital Investment (b+h)	:	33,42,000

9. FINANCIAL ANALYSIS :

(a) Cost of production per Annum :

Sr. No.	Description	Value (Rs.)
01.	Raw & Packing Materials	97,39,500
02.	Salary & Wages	10,08,000
03.	Utilities	2,25,000
04.	Other Expenses	5,30,016
05.	Depreciation on Machinery & Equipments @ 10% p.a.	40,300
06.	Interest on borrowed capital @ 12 % p.a.	3,95,160
	Total	1,19,37,976
	Or say	1,19,38,000

(b) Turnover per Annum :

Total sales value of 150 K.L. Black Disinfectant Fluid : **Rs. 1,32,00,000**
 @ Rs.88,000 per K.L.

(c) Net Profit per Year :

Net Profit	=	Total turnover	-	Total cost of production
	=	1,32,00,000	-	1,19,38,000
	=	12,62,000		

(d) Profit Ration on Sales :

$$\text{Profit Ratio on Sales} = \frac{\text{Net Profit}}{\text{Total turnover}} \times 100$$

$$= \frac{12,62,000}{1,32,00,000} \times 100$$

$$= 9.56 \%$$

(e) Rate of Return (ROR) on Total Capital Investment:

$$\text{ROR} = \frac{\text{Net Profit per annum}}{\text{Total Capital Investment}} \times 100$$

$$= \frac{12,62,000}{33,42,000} \times 100$$

$$= 37.76 \%$$

(f) Break Even Analysis :

(i) Fixed Cost :

Sr. No.	Description	Amount (Rs.)
01.	Depreciation on Machinery & Equipments @ 10% p.a.	40,300
02.	Interest on Total Capital Investment @ 12 % p.a.	3,95,160
03.	40 % of Salary & Wages	4,03,200
04.	40 % of Other Expenses	2,12,006
	Total	10,50,666
	Or say	10,51,000

(ii) Break Even Point (B.E.P.) :

$$\text{B.E.P.} = \frac{\text{Fixed Cost}}{\text{Fixed Cost} + \text{Profit}} \times 100$$

$$= \frac{10,51,000}{10,51,000 + 12,62,000} \times 100$$

$$= 45.44 \%$$

Name and Addresses of Plant and Machinery Suppliers :

1. **MATTFINISH OR POLISHFINISH MS Vessels, Material Grade: SS304-SS316-MS2062**
Sold By - Karadani Engineering Pvt Ltd, Ahmedabad, Gujarat
2. **Mild Steel Pressure Vessel**
Sold By - Shanky Engineering Works, Ghaziabad, Uttar Pradesh
3. **Mild Steel Mixing Tanks, Capacity: 500-1000 L**
Sold By - Karadani Engineering Pvt Ltd, Ahmedabad, Gujarat
4. **VED ENGINEERING Pulp Mixing Tank, Capacity: 0-250 L**
Sold By - Ved Engineering, Noida, Uttar Pradesh
5. **Krish Mild Steel with Rubber Lining Vessel**
Sold By - Karadani Engineering Pvt Ltd, Ahmedabad, Gujarat

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