PHENYLE

I. INTRODUCTION:

Phenyl is an emulsion of light creosote oil and water with soap. Creosote oil contains carbolic acid, creosol and other homologues of phenol which exert the necessary germicidal powder Adequate incorporation of creosote oil or further addition of phenol or cresylic acid or other anti septic chemicals is essential to conform to the carbolic coefficient required for the product. Apart from possessing the correct germicidal strength, phenyl should stand without separation for any length, whether exposed or not. When poured into water it should readily disperse without stirring. It should form a thick milky white emulsion when sufficiently diluted. This is how an ordinary buyer would generally judge the quality of this disinfectant.

Phenyl apart from its use in household, hotels, and restaurants, kitchens, bathrooms, and drain lines is used in considerable quantities by institutions such as hospitals, nursing homes, dispensaries and municipalities. A license is required from the State Drug Controller to manufacture phenyl.

This is presently being manufactured to a limited extent in Hyderabad.

II. MARKET POTENTIAL

In view of the demand, there is good scope to start one or two small units in all the important towns of the state.

III. BASIS AND PRESUMPTIONS:

No. of working days p.m. is 25. No. of working hours per day is 8 hours

IV. IMPLEMENTATION SCHEDULE:

The unit can be set up in 3 months

V. TECHNICAL ASPECTS:

1.Process of Manufacturing:

The scope for the manufacture of this disinfectant should be prepared as soft soap. This is first dissolved in water and then the cresote oil is added to form the emulsion. Great care need to be taken while the saponification of the oil with the alkali takes place. The heat should be regulated very carefully and it should be seen that the flame does not comein contact with the surface of the oil. The sudden increase of temperature may also be accompanied by swelling up of the mass and the subsequent flowing over, which must be prevented.

2. The following are the raw materials generally used in the manufacture of phenyl.

-Rosin, pale yellow to deep brown (black type is not suitable)

-Caustic soda

-Castor oil (ordinary quality)

-Light cresote oil containing 25 to 30% carbolic acid.

Process:

1. Weigh, put the materials separately as per quantities given in the formula.

2. Prepare the caustic soda solution. Take required quantities of resin and castor oil in a pan. Then heat the above material till it is dissolved. Add slowly caustic soda solution to the above dissolved mass. Care is to be taken that in no case the mass over flows the pan. To control this, add caustic soda solution little by little. In this way when the major portion of caustic soda solution is mixed, the boiling slowly comes down. Now add the remaining caustic soda solution and continue boiling for about 15 minutes.

3.The heating is to be continued till the reaction is completed which can be determined by adding a few drops to a glass of water when a white solution should result.

4.Now mix the water and boil. Allow the solution to boil a little by extinguishing the first and then transfer it into a steel drum and mix the light creosote oil stirring. Close these of the drum and keep aside to cool for a day when the once the product is ready for use. This product is a good type of fluid, when a little of this is added to a glass of water, it at once produces a thick milky white emulsion with good odour.

5.For ordinary type phenyl:

- Rosin 3.63 Kg

- Caustic soda 900 gms

- Water to dissolve caustic soda 9 litrs

- Light creosote oil 9 litres

- Water 27 litres

- Castor oil 2.72 Kgs.

Processed in the same way as above.

2.Quality Specification

As per customers specification

3.Production Capacity per annum

Quantity: Annual capacity 30000 ltrs.per year or 2500 ltrs per month

Value: Rs.1050000

4.Motive Power 3 phase

VI. TOTAL CAPITAL INVESTMENTS

S.No	Description	Value Rs.
1	Fixed Capital	30000
2	Working capital	213285
	Total cost	243285

VII. MEANS OF FINANCE

1.Promoter's Contribution (5% of total cost) 12164
2.PMRY subsidy (15% of total cost or Rs.7500,whichever is less) 7500
3.Bank loan[total cost-(Promoter's Contribution+ PMRY subsidy) 223621

VIII. FINANCIAL ASPECTS

1. FIXED CAPITAL

i) Land & Buildings : Rented premise of 1250 sft. at a rent of Rs.1500 pm

ii) Machinery & Equipment

S.No	Description	Quantity	Value Rs.
1	Cast iron pan, capacity 60 gallons		30000
2	Mixer, stirrer-electrically operated		
3	Galvanized buckets, measuring cans, scale,weights, furnace, steel drums and misc. equipment		
4	Furniture and office equipment		
5	Erection & Power wiring		
	Total		30000

2. WORKING CAPITAL

i)Staff & Labour per month

S.No	Designation	No	@ Rs.	Value Rs.
1	Chemist	1	1500	1500
2	Clerk-typist	1	900	900
3	Skilled worker	2	750	1500
4	Unskilled worker	2	500	1000
5	Watchman	1	500	500
	Total			5400

ii)Raw Material (p.m.)

S.No	Description	Quantity	Value Rs.
1	Rosin	175 kg	7875
2	Castor oil	130 kg.	5200
3	Caustic soda	43 kg.	860
4	Light Creosote oil	432 ltr.	23760
5	Lables, solders, lids, corks, etc.		5000
6	Tins -5 litre capacity	500 no.	12500
7	Fuel		5000
	Total		60195

iii) Utilities per month

S.No.	Description	Value Rs.
1	Power	100
2	Water	500
	Total	1500

iv)Other expenses per month

S.No	Description	Value Rs.
1	Repairs , & taxes	500
2	Advertisement	500
3	Transport	500
4	Misc. expenditure	1000
	Total	2500

v.Total working capital per month

S.No	Description	Value Rs,.
1	Rent	1500
2	Staff and labour	5400
3	Raw materials	60195
4	Utilities	1500
5	Other expenses.	2500
	Total	71095

IX. COST OF PRODUCTION PER ANNUM

S.No	Description	Value Rs.
1	Total working capital	853140
2	Depreciation	3000
3	Interest	36492
	Total	892632

X. TURNOVER PER YEAR

S.No	Item	Quantity	Rate Rs.	Value Rs.
1	Phenyl	30000 ltr.	35	1050000
	Total			1050000

XI. FIXED COST PER YEAR

S.No	Description	Value Rs.
1	Depreciation	3000
2	Interest	36492
3	Rent	18000
4	40% of salaries & wages	25920
5	40% of other expenses (utilities + OE)	19200
	Total	102612

XII. PROFIT ANALYSIS

Net Profit : sale-total cost= 1050000-892632=157368
% of Profit on Sale: Profit / Sale x100 =14.99%
% of Return on Investment: Profit / (Investment) x 100=157368/243285]100=64.68
Break-Even Analysis : FC / (FC+Profit) x100=102612/102612+157368]100=39.47

XIII. RAW MATERIAL SUPPLIERS

1. Desai chemicals, Abids, Hyderabad.
2. Star Education Supplying co., Tilak Road, Hyderabad
3. Acme Chemical works, Jeedimetla , Hyderabad