



PROJECT PROFILE ON BLACK DISINFECTANT FLUID

Product Name	BLACK DISINFECTANT FLUID (PHENYL)
NIC Code	20212
BIS No.	IS 1061:1997
Production Capacity (Per Annum)	180 M.T
Value (In Rs Per Annum)	72.0 Lacs
Month & Year of Preparation	June-2020
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Fig: BLACK PHENYL

INTRODUCTION:-

Phenyl is an emulsion of homogeneous solution prepared by addition of rosin, Creosote oil and liquid soap. It is of black or dark brown colour, however on mixing with water it is converted into milky 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.

MARKET & DEMAND ASPECTS: -

The black phenyl is used as a cheap and strong disinfectant to kill the germs, micro-organism and all other similar type of parasites, bacteria and fungi from the surfaces. It finds application in residential houses, Hospitals, Cinema Halls,

Restaurants, Laboratories, Govt. establishments as well as non govt. organizations. With the changed living styles of peoples both in rural and urban areas particularly from the angle of hygiene and cleanliness, the use of phenyl has increased tremendously in recent past .Rather its increase in demand is directly proportional to increased level of consciousness towards health and hygiene. Phenyl is an essential requirement in summer and rainy season. The manufacture of phenyl/disinfectant fluids is under 358 reserved items of Public Procurement Policy, that is an item reserved to be purchased from MSEs. This is an industry which can be started with little investment or say as a Micro enterprise. In present pandemic situation of COVID-19, the states like Haryana being closer to Delhi, U.P, Punjab (the hotspots of COVID-19 cases), there is high demand of phenyl in present situation but due to unawareness about entrepreneurship, marketing and availability, people of the region are buying from other parts of country at high rates. However, this type of industries may witness high profits in years to come as it has got a good market potential both at domestic and export market and may be easily established with low investment in the region.

REGULATORY REQUIREMENT

As the liquid phenyl manufacturing process requires usage of harmful chemicals, that's why the licensing and legal procedures are the critical part of the business.

The steps required for the legal procedures are mentioned below: –

- Give a name to the manufacturing company.
- Open a current account in any government registered bank.
- Get registered with Udyog Aadhar Memorandum Registration and MSME Databank.
- Register your company with ROC, if required.
- Apply for the trade license.

- Apply for the GST registration (Since Turn over will be more than 40 Lakhs)
- Get a “Consent to Establish” and “Consent to Operate” from the Pollution Control Board.
- As per Drug Act, **liquid phenyl** is considered as a drug so you need to take permission and license from the Drug Control Authority prior to production.

PROPERTIES OF PHENYL

Phenyl is an agent which is used to destroy the pathogen and micro-organism, hence it finds number of uses. The main use of phenyl is sanitation of floors, washrooms, drains, doors etc. A good phenyl should have following properties-

1. Phenyl should be a deodorant; it should not have any unpleasant odour or stain in the area to be disinfected.
2. It should be homogenous in nature and should not leave any sediment on keeping for long time.
3. It should not be poisonous for human being or should not leave any poisonous effect on the body of the user.
4. It should not be corrosive to the animal tissues.
5. It should have pleasant odour and colour.

IMPLEMENTATION SCHEDULE

Project Implementation will take approx 9-10 month from the date of approval of Project. In case of Phenyl manufacturing proper approval from Drug Control of the state is mandatory before opening the industries of Black phenyl as the

product comes under the Drug and Cosmetic Act. The breakup of the some main activities is given as under. More than one activity can be run simultaneously-

S.No	Name of the Activity	Proposed Time
1.	Market Survey, selection of site and preparation of Project Profile	One Month
2.	UAM registration and Approval from State Drug Controller	Two Weeks
3.	Finance /Loan approval from financial institutions/ Bankers	Three Months
4.	Power connection and Construction of Building	Four Months
5.	Machinery Procurement and Trial Run	One Months
6.	Recruitment of Staff & Labour	Two Weeks
7.	Actual Commercial Production	Two Weeks

BASIS AND PRESUMPTIONS:-

The project has been drafted taking into account of the following aspects:-

1.	No. Of Working Days in a Week	Six
2.	Duration of the Shift in a day	8 Hours
3.	Number of Working Days in a Year	300 Days
4.	Working Efficiency of the Unit	75%

5. Construction of Building will be as per the requirement of Manufacturing Activity and as laid down in drug and cosmetic Act.

6. The estimates are drawn from a production capacity generally considered techno economically viable for a modern type of manufacturing unit.
7. The **quality Standard** must be followed as per specification
8. The **wages** of staff and labour is taken as per the prevailing labour wages in the market.
9. The **rate of Interest** will be as per prevailing in the market
10. Machinery, Testing Equipments & all other equipments used in manufacturing such type of products, may also be employed in manufacturing and testing of all other similar type products.
11. Although Unit is free from Pollution and effluent discharge, still provision of exhaust fan may ensure fresh environment.
12. In case of non availability of fund for construction of building, such type of enterprises may be started in **rented** building. This not only saves your time but also interest on bank loan, perhaps, product comes out to be more cost effective.

MANUFACTURING PROCESS:-

The Common Manufacturing process for manufacturing of black disinfectant fluids involves saponification of fatty oils and caustic soda. For preparing soft soap, a boiling solution of caustic soda (30 Tw)is added to a mixture of fatty oil and molten rosin. The proportions of the constituents are adjusted to give 1.0-1.5% excess of alkali and heated at the temperature of 60-65 degree Centigrade.

The soft soap is now dissolved in hot water creosote oil including other ingredients and are added to yield a dark brown or black Fluid. During the mixing continuous stirring should be done for obtaining homogenous liquid. In this liquid water is added in the end, now the product is ready to use. The batch time ranges from two and half hour to three and half hour.

Composition of Black Disinfectant Fluid should be as given below-

1.	Soft Soap Containing Rosin	35 Kg
2.	Cresote Oil	10 Kg
3.	Mono Chloro Phenol	0.5 Kg
4.	Water	54.5 Kg

Before packing in the bottles, more water may be added in hot mass to dilute the mixture and to make it a homogenous solution.

DESIRED QUALIFICATION FOR ENTREPRENEUR

Graduate in any discipline preferably in science

QUALITY CONTROL AND STANDARDS:-

The Indian standard specification for Black Disinfectant Fluid is IS-1061-1962

FINANCIAL OUTLAY

(A) Fixed Capital Investment

LAND AND BUILDING

For focusing Rural Industrialization, Land- 400 Sq Meters @ 4000/ per sq. meter-
= **Rs.16.0 Lakhs** may be purchased for setting up unit.

Building- Covered Area approx. 350 sq meters should be in following manners

1	Manufacturing Shed for manufacture of Phenyl 10 x 10 sq Mtrs	100 Sq Mtrs
2.	Raw material storage section 10 x6 sq mtrs	60 Sq mtrs
3.	Finished Product Storage Room 10 x6 sq Mtrs	60 Sq mtrs
4.	Office 10 x 8 sq mtrs	80 Sq Mtrs
5	Laboratory 6 x 5 Sq mtrs	30 sq mtrs
6.	Utilities 5 x4 sq Mtrs	20 Sq mtrs
	TOTAL COVERED AREA-	350 Sq Meters

Construction Value of 350 Sq Meters @ 4000/- Per Sq Mtrs =14.0 Lacs

Total Cost Of Land and Building= Rs. 16.00 +14.0 = Rs . 30.0 Lacs

Here, it is advisable to purchase land in out skirt of city where rates are comparatively less in comparison to main city.

PLANT AND MACHINERY

S.No	Description Of M/c	Qty	Value (Rs)in lakhs
1	MS Double walled reaction vessel with steam jacketed capacity One ton	2	8.0
2	Bottle filling and sealing equipments	2	1.0
3	Open hearth	2	0.30
4	Transfer pump for steam circulation 1.5 hp	1	0.80
5	HDPE drums for storage of raw material and finished products	50	0.25
6	Weighing balance physical	2	0.20

		Sub total	10.55
7	Erection & electrification @ 10%		1.05
			11.60

Lab. Equipments for chemical and Microbiology lab - Rs 2.0 Lacs

Furniture & Fixture, Almirah, Computer etc - Rs 1.0 Lacs

Pollution Control equipments viz- Exhaust fan, chimney etc - Rs 0.30Lacs

TOTAL FIXED CAPITAL INVESTMENT = Rs. 16.0 + 14.0 + 11.60 +2.0

+1.0+0.30 =Rs 44.90 Lacs

(B) WORKING CAPITAL

Raw Material (P.M)

S.No	Name of the Raw Material	Qty (Kg)	Rate (Rs)Per M.T	Value (Rs) (In Lacs)
1	Oils of non edible grade	3125 kg	50/-	1.56
2	Caustic soda	500 kg	42/-	0.21
3	Rosin	250 kg	77/-	0.19
4	Creosote oil	1250 kg	50/-	0.62
5	MCP	6.25 kg	90/-	0.06
6.	Packaging labels etc	0		0.10
			TOTAL	2.74Lac

STAFF AND LABOUR (Per Month)

S.No	Designation	No.	Salary per person	Amount(Rs)
1	Manager-cum-Analytical chemist	1	25,000	25,000
2	Manufacturing Chemist	1	18,000	18,000

3	Skilled worker	2	12,000	24,000
4	Un-skilled worker	3	9,000	27,000
5	Peon-cum-chowkidar	1	7,000	7,000
6	Sales Executive	1	7,500	7,500
7.	Perquisites @ 15%			16,275
			TOTAL	Rs.124775/- say 1,25,000/-

OTHER EXPENSES (Per Month)

S.No	Activity	Amount (Rs)
1	Electricity	10000
2	Water	1,000
3	Transportation	7,500
4	Telephone	500
5	Insurance	500
6	Maintenance	500
8	Misc Expenses	500
	TOTAL	Rs.20,500/-

TOTAL WORKING CAPITAL PER MONTH=Rs.2.74+ 1.25 + 0.20= 4.19 LACS

Working Capital for three Month =Rs 4.19 x 3 = 12.57 lacs

Total Fixed capital investment =Rs. 44.90 lacs

Total Capital Investment (TCI) = Working Capital for three Month+ Total Fixed capital investment

= Rs. 12.57+ 44.90 = 57.47 lacs.

Cost Of Production (P.A)

S.No	Description	Amount (Rs) In lacs
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1	Total Recurring Expenses	50.28
2	Depreciation on Building	1.40
3	Depreciation on Plant & machinery and Testing equipments @10%	1.39
4	Depreciation on Furniture and Fixture@20%	0.20
5	Interest On total Capital Investment @ 12% P.A	6.89
	TOTAL	60.22

Turn Over by Sale of 180 MT black disinfectant fluid @ 40/- = 72.0 LACS

□ Net Profit = Turnover by sales- Cost of Production

Net Profit = 72.0 – 60.22 = 11.78 Lacs

□ **Percentage Profit on Sales= $\frac{\text{Net Profit} \times 100}{\text{Total Sales}}$**

Percentage Profit On Sale = $(11.78 \times 100) / 72.0 = 16.36\%$

□ **Percentage Profit on Total Capital Investment= $\frac{\text{Net Profit} \times 100}{\text{Total Capital Investment}}$**

Percentage Profit Total Capital Inv. = $\frac{11.78 \times 100}{57.47} = 20.49\%$

Break Even Point Analysis

□ **Break Even Point : $\frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Net Profit}}$**

Fixed Cost-

S.No	Description	Amount (Rs) In Lacs
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1	40% of Staff and labour	6.0
2	40% of Other Expenses	0.98
3	Total Depreciation	2.99
4	Interest On Total capital Investment	6.89
		16.86

$$\text{B.E.P} = \frac{16.86 \times 100}{16.86 + 11.78} = 58.85\%$$

$$16.86 + 11.78$$

Addresses of Machinery and equipment Suppliers

1	M/s Gujrat Machinery Mfg. Limited Church Gate 32-34, Veer Nariman Road, Mumbai-1 Phone: 022 2204 7470
2	M/s Glass Lined Equipments Co. Limited District Kaira Umreth, Gujarat -388220 Email Id: services@kpcindia.com
3	M/s Sinotrans Pvt. Limited Hamilton House 3, Greham Road, Ballard Estate, Mumbai-38 Phone: 022 6633 0700
4	A.P.V Engg. Company 2, Jessore Road, Kolkatta Ph No. 033-25500249, 255002487
5	M/s Busching Schmitz Pvt. Limited G-1 Ashok Bhavn 93, Nehru Place, New Delhi
6	Avery India Limited Avery House 28/2 Waterloo Street

	Kolkatta-730001
7	Kamdhenu Agro Machinery Plot No. 6, Near Power House, Wathoda Road, Wathoda Nagpur - 440035 Maharashtra
8	Future Industries Private Limited Shed No. 15, Ambica Estate, Corporation Municipal Plot, Opposite Sadvichar Hospital, Naroda, Ahmedabad - 382330, Gujarat
9	The Machinery and equipment may also be fabricated from local fabricator according to required shape, size and design

Addresses Of Raw Material Suppliers/ Dealers

1	M/s Tata Chemicals Limited Mumbai8 House 24, Homomodi St Fort Mumbai-400023 Maharashtra 022-66437400
2	M/s Utkal Hydrocarbon Limited Industrial Area Bhilai, Chattisgarh
3	M/s Sargodha Trading Company Old G.T Road Committee Chowk, Karnal , Haryana
4	M/s Dujodwala Industries 14/1, Mathura Road

	Faridabad, Haryana
6	M/s Sainath Enterprises No.100/C, Mahadevapura, Peonya Industrial Estate Bangalore - 560048, Ph no.:9152357096
7	M/s Delhi Chemical Company 2130, Tilak Bazar, Naya Bazar, Khari Baoli, Old Delhi, New Delhi, Delhi 110006 Phone: 011 2391 5300
8	M/s M.N.S Chemicals Shop No:- 2134, Chemical Market, Khari Baoli, Delhi - 110006, Tilak Bazar Ph no. 011-22931857,23979847
9	M/s Sunbeam Industries 23/1 Meghal Industrial Estate, Devidayal Rd, Mulund West, Mumbai, Maharashtra 400080 Phone: 022 6798 7022
10	Ramesh Arun & Co Katra Pedan, Khari Baoli, Chandni Chowk, Delhi 110006