

Project Profile

1. **Product** : **Disinfectant Fluids
(Phenolic Type)**
2. **NIC Code (1998)
(Based on NIC-1998)** : **311408001**
3. **Product Code
(Based on ASICC-2000)** : **32416**
4. **Production Capacity** : **300 K.L. per Annum.**
5. **Month & year of Preparation** : **June 2020**
6. **Prepared by** :

METALLURGY DIVISION

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 color and on dilution with water it gives translucent off-white color. 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 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:

Sr. No.	Activity	Estimated Time Period (Months)
01.	Scheme preparation & approval	0 – 2
02.	Registration under MSME and sanction of loan	2 - 5
03.	License from FDA	5 - 6

04.	Placement of Orders for Machines	6 - 7
05.	Power Connection	6 - 7
06.	Installation of Machines	7 - 8
07.	Recruitment of Staff & Trial run	8 – 9
08.	Commercial Production	10 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 material 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: 1997**

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	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 color 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	-	20,000
(b)	Machinery & Equipments		
01.	M.S. Saponification Vessel, Cap: 100 Ltrs. Per batch.	1 No.	25,500
02.	M.S. Mixing vessel, Cap:250 Ltrs per batch	1 No.	44,000
03.	M.S. Storage tank	3 Nos.	66,000
04.	Automatic Filling Machine	1 No.	83,000
05.	Automatic Sealing Machine	1 No.	17,000
06.	Shrinking Machine	1 No.	77,000
07.	Other Misc. Equipments	-	28,000
08.	Laboratory Equipments	-	60,000
09.	Installation of Machinery & equipments @ 10% of the cost.	-	40,050
10.	Preoperative Expenses	-	25,000
Total			4,65,550
Or say			4,66,000

(c) Raw & Packing Materials per Month:

Sr. No.	Description	Rate	Quantity	Value (Rs.)
01.	Rosin	Rs.150/Kg.	625 Kg.	93,750
02.	Castor Oil	Rs.180/Kg	2500 Kg.	4,50,000
03.	MCP	Rs.180/Kg.	1250 Kg.	2,25,000
04.	Creosote Oil	Rs.60 /Kg.	1625 Kg.	97,500
05.	Caustic Soda	Rs.50 / Kg.	500 Kg.	25,000
06.	Water	-	6000 Kg.	6,000
07.	Packing Materials viz. Bottles, Master Cartons, Bopp Tape etc.	-	-	1,00,000
			Total	9,97,250

(d) Salary & Wages per Month:

Sr. No.	Description	Nos.	Value (Rs.)
01.	Supervisor / Chemist	01	25,000
02.	Semi – skilled labor	03	54,000
03.	Unskilled labor	02	30,000
		Total	1,09,000

(e) Utilities per Month:

Sr. No.	Description	Rate	Quantity	Value (Rs.)
01.	Power	Rs.6.25/unit	5000 Units	31,250
02.	Fuel & Lubricants	-	-	10,000
03.	Water	-	-	2,000
			Total	43,250

(f) Other Expenses per Month:

Sr. No.	Description	Quantity	Value (Rs.)
01.	Rent	-	20,000
02.	Postage & Stationery	-	5,000
03.	Telephone	-	3,000
04.	Repair & Maintenance	-	10,000

05.	Insurance @ 2% of Machinery & Equipment Cost	-	8010
06.	Marketing & Traveling Expenses	-	15,000
07.	Other Misc. Expenses	-	10,000
	Total		71,010

(g) **Working Capital for One Month (c+d+e+f) : 12,20,510**

(h) **Working Capital for three Months : 36,61,530**

(i) **Total Capital Investment (b+h) : 41,27,530**

9. FINANCIAL ANALYSIS:

(a) Cost of production per Annum:

Sr. No.	Description	Value (Rs.)
01.	Raw & Packing Materials	1,19,67,000
02.	Salary & Wages	13,08,000
03.	Utilities	5,19,000
04.	Other Expenses	8,52,120
05.	Depreciation on Machinery & Equipments @ 10% p.a.	40,050
06.	Interest on borrowed capital @ 12 % p.a.	4,95,304
	Total	1,51,81,474

(b) Turnover per Annum:

Total sales value of 300 K.L. Black Disinfectant Fluid : **1,80,00,000/-**
@ Rs.60,000 per K.L.

(c) Net Profit per Year:

Net Profit = Total turnover - Total cost of production
= 1,80,00,000 - 1,51,81,474
= **28,18,526**

(d) Profit Ration on Sales:

Profit Ratio on Sales = $\frac{\text{Net Profit}}{\text{Total turnover}} \times 100 = 15.66\%$

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

$$\begin{aligned}\text{ROR} &= \frac{\text{Net Profit per annum}}{\text{Total Capital Investment}} \times 100 \\ &= \mathbf{68.28 \%}\end{aligned}$$

(f) Break Even Analysis:

(i) Fixed Cost:

Sr. No.	Description	Amount (Rs.)
01.	Depreciation on Machinery & Equipments @ 10% p.a.	40,050
02.	Interest on Total Capital Investment @ 12 % p.a.	4,95,304
03.	40 % of Salary & Wages	5,23,200
04.	40 % of Other Expenses	3,40,848
05.	40 % of Utilities	2,07,600
Total		16,07,002

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

$$\begin{aligned}\text{B.E.P.} &= \frac{\text{Fixed Cost}}{\text{Fixed Cost} + \text{Profit}} \times 100 \\ &= \mathbf{36.31 \%}\end{aligned}$$

Project Profile

Product:- : **Stretcher Trolley**

Quality Standard : IS: 4035-1967(R2001)

Production Capacity (PA) : Qty. - 1200 Nos.

Yearly Turnover : Value Rs. 204 Lakhs.

Month & Year of Preparation : June 2020

Prepared By :

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INTRODUCTION



Stretchers. A stretcher, also referred to as a “gurney” or a “patient trolley,” is a medical device upon which a patient lies for transportation. Stretcher Trolleys are generally made of anti-bacterial or anti-microbial properties (which most hospital equipment are made of), but the Stretcher Trolley manufacturers do make them the way other beds are made.

PRODUCTS AND ITS USE

Stretcher Trolleys are made of steel & Stretcher Trolleys are generally made of anti-bacterial or anti-microbial properties. These beds are generally used in transportation of patients in Govt. Hospital, Private Hospital as well as Nursing homes etc.

Basically this beds is more effective for staff use:

1. Stretcher Trolleys are specially made for patient’s extra comfort, and easy to and for transfer of emergency staff, hospital wards, OT staff, etc.
2. They are designed in such a way that stretcher bed can be detached easily.
3. They are equipped with trusted actuators and control systems.
4. Spare parts are highly durable.

MARKET:-

The demands for Stretcher Trolleys are increasing day by day due to the following reasons:

1. Increase the number of Hospitals in private sector& their expansion
2. Increase in number of private & Government nursing homes & their expansion.

The Government is also encouraging new hospitals & nursing homes in

private sectors in order to increase treatment facilities in accordance with the development in public health sector & as such it is likely to be a steady increase in the demand for hospital furniture. However, the growth rate is expected to be more than 10% to 15% per year and as such it may be ideal for the existing steel furniture manufacturer units to take up this activity for not only as diversification but also better capacity utilization by installing a few balancing equipments.

The productivity of your staff definitely impacts patient care and revenue generation. The better the patient care, the higher the patient satisfaction. Hospital staff is able to give their best when they have good quality furniture and medical equipment at their disposal.

BASIS AND PRESUMPTION

This project is based on single shift basis with 8 hours and 300 working days in a year. The unit is proposed to be started in own building. Costs of machinery, equipment, raw material indicated in this report refer to a particular make and approximately to those prevailing at the time of preparation of this profile and it is presumed that these rates are likely to vary from supplier to supplier and place to place. Cost of installation and electrification of plant and machinery is taken @ 10% of its cost. The interest rate is taken @ 12%.

IMPLEMENTATION SCHEDULE

Time period required for executing the project from preparation of project report to starting the trial run production will be 8 months period approximately. Considering that some of the many activities may be overlapping, the project implementation will take a total period of Six months approximately for starting the actual production.

TECHNICAL ASPECTS

Process of Manufacturing

Raw materials like all type of iron angle, pipe, thickness of pipe (difference between internal and outer dimension), quality of castor wheels and also check condition of nut bolt are checked for their quality.

The basic operations involved in the manufacturing of adjustable beds are as follows:

- i. Cutting & bending of pipes
- ii. Cutting of strips
- iii. Welding& Riveting
- iv. Grinding
- v. Assembly of wheel mechanism
- vi. Painting& baking

QUALITY SPECIFICATION

Stretcher Trolleys

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations 1967 (R2001) for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification license/certificate.

1) PRODUCTION CAPACITY PER ANNUM

- i) Quantity = 1200 nos.
- ii) Value = 204.0 lakhs

2) APPROXIMATE POWER REQUIREMENT

This industry is not a large power consuming industry; however maximum care should be taken in utilization of electrical energy.

3) POLLUTION CONTROL

This industry does not involve in generation of pollution.

4) ENERGY CONSERVATION

Power requirement is very low, even then energy can be saved by proper housekeeping.

Financial Aspects:-

No.	Particulars			Amount in Rs.
(a)	Land and Building (200 Sq. Mts build up shed Rented) (Per Month)			20,000/-
(b)	Machine & Equipment			
S.No.	Name of machine	Qty.	Rate (Rs.)	Amount(Rs.)
1	Pipe bending machine hand operated with fixtures locally fabricated.	1 Nos.	50,000/-	50,000/-
2	Arc welding set	1 Set	50,000/-	50,000/-
3	Gas Cutting set with torch, regulators etc.	1 set	40,000/-	40,000/-
4	Bench drill machine 13 mm capacity	1No.	25,000/-	25,000/-
5	Portable drilling machine 13 mm capacity	1 No.	20,000/-	20,000/-
6	Flexible shaft grinder 150 mm Wheels	1 No.	10,000/-	10,000/-
7.	Double ended bench grinder300 mm sizes	1 No.	20,000/-	20,000/-
8.	Hand shearing machine 3 mmcapacity	1 No.	10,000/-	10,000/-
9.	Baking oven 2.5 x 2 mts. X 2mts. Size 20 Kw capacity.	1 No.	70,000/-	70,000/-
10.	Hand press No. 4	2 Nos.	7,500/-	15,000/-
11.	Cleaning, pickling, phosphating tanks 2.5 x 2 x 2 Mts	-	-	70,000/-
12.	Compressor with spray gununit for painting	1 No.	20,000/-	20,000/-
13.	Riveting M/c portable type electric operated	1 No.	25,000/-	25,000/-
14.	Hand Tools, instruments etc	--	--	20,000/-
16.	Other Misc. equipments	--	--	50,000/-
17.	Electrification & Installation @10 % cost of machinery	--	--	49,500/-
18.	Pre- operative expenses	--	--	50,000/-
Total Amount				5,94,500/-

(c) Raw materials Per Month

S.N	Description	Unit	Qty.	Rate	Value In Rs.
1	M.S.Tubes 38.10 mm OD x 1.6 mm/1.22mm thick	MT	1.25	70,000/-	87,500/-
2	M.S.Tubes 25.40 mm OD x 1.6 mm/1.22mm thick	MT	1.25	75,000/-	93,750/-
3	Resin Sheet	Mtr	400	150/-	60,000/-
4	M.S. Strips 1.25 mm x 25 mm	MT	3.25	65,000/-	2,11,250/-
5	Castor wheels	Nos	3000	200/-	6,00,000/-
6	Nuts, Bolts, Screws, Washers, Flats, Rubber items & paint etc.	Nos	5000	20/-	1,00,000/-
Total					11,52,500/-

(d) Personnel (Salary &Wages per Month)

No	Designation	No	Salary/Month	Total Salary in Rs.
2	Supervisor	1	25,000/-	25,000/-
3	Skill Labour	4	20,000/-	80,000/-
4	Un skilled Labor	7	15,000/-	1,05,000/-
Total				2,10,000/-

(e) Utilities per Month

No.	Description	Rate	Qty.	Value (Rs.)
1	Power	Rs. 6.25/Unit	4000 Units	25,000/-
2	Lubricants			5,000/-
3	Water			5,000/-
			Total	35,000/-

(f) Other Contingency expenses per month

No.	Description	Quantity	Value (Rs.)
1	Rent	-	20,000/-
2	Postage & Stationery	-	5,000/-
3	Telephone	-	3,000/-
4	Repair & Maintenance	-	30,000/-

5	Insurance @ 2% of Machinery & Equipment Cost	-	9,900/-
6	Marketing & Traveling Expenses	-	15,000/-
7	Other Misc. Expenses	-	10,000/-
		Total	92,900/-

- (g) Working capital for one Month (c+d+e+f) : 14,90,400/-
(h) Working capital for three Month : 44,71,200/-

(i) Total capital investment (b+h) : 50,65,700/-

Machinery Utilization

Capacity utilization is considered as 75% of installed capacity

FINANCIAL ANALYSIS

a) Cost of Production (Per Year)

No.	Description	Value (Rs.)
01.	Raw & Packing Materials	1,38,30,000/-
02.	Salary & Wages	25,20,000/-
03.	Utilities	4,20,000/-
04.	Other Expenses	11,14,800/-
05.	Depreciation on Machinery & Equipments @ 10% p.a.	49,500/-
06.	Interest on borrowed capital @ 12 % p.a.	6,07,884/-
		1,85,42,184/-
	Or Say	1,85,42,000/-

b) Turn over (Per Year)

Item	Qty	Rate	Value In Rs.
Stretcher Trolleys	1200	17,000/-	2,04,00,000/-

c) Net Profit per Year

$$\text{Rs. } 2,04,00,000/- - 1,85,42,000/- = 18,58,000/-$$

d) Net Profit Ratio

$$\frac{\text{Net Profit X 100}}{\text{Total Turn over}}$$

$$\frac{18,58,000/- \text{ X } 100}{2,04,00,000/-} = 9.1\%$$

e) Rate of Return

$$\frac{\text{Net Profit X 100}}{\text{Total Capital Investment}}$$

$$\frac{18,58,000/- \text{ X } 100}{50,65,700} = 36.68\%$$

f) Break Even point

Fixed Cost

Rs.

a) Total Depreciation@10% p.a.	: 49,500/-
b) Total Interest @ 12% p.a	: 6,07,884/-
c) Salary @ 40%	: 10,08,000/-
d) Other Expenses @ 40%	: 4,45,920/-
e) Utility @ 40%	: 1,68,000/-
Total	: 22,79,304/-

$$\text{B.E.P.} = \frac{(\text{Fixed cost x 100})}{(\text{Fixed cost} + \text{Profit})}$$

$$= \frac{22,79,304/- \text{ X } 100}{22,79,304/- + 18,58,000/-}$$

$$= \frac{22,79,30,400/-}{41,37,304}$$

$$= \mathbf{55.1\%}$$

Machine & equipment Supplier

1. **Umiya Industries**
GIDC Naroda, Ahmedabad, Gujarat 382330
Phone: 079 2282 0709
2. **Adinath Equipments Pvt. Ltd**
FF-11/12/13, Dinubhai Estate, near Annapurna Restaurant,
TrikampuraPatiya, GIDC Vatwa, Ahmedabad, Gujarat 382445
Phone: 099989 57744
3. **Yantralink Machine Tools**
14, Jagnath Estate, Cross Rd, opposite Gujarat Bottling,
Rakhial, Ahmedabad, Gujarat 380023
Phone: 094091 70703

Raw Material Supplier

- 1) **Ahmedabad Steel Craft**
401, 4th Floor, 637 Complex, Panchvati 2nd Lane, Near Suryarath
Complex, GulbaiTekra Rd, opposite Patel Society, GulbaiTekra,
Ahmedabad, Gujarat 380006
Phone: 079 2640 1996
- 2) **Shreeji Wheels And Castors Industries**
C/4, Sumel 7, Cross Road, Soninichali, Rakhial,
Ahmedabad, Gujarat 380023
Phone: 099780 55111
- 3) **SPL FASTENERS PVT LTD**
C-18, Sarthi Complex, Opposite Navgujarat Petrol Pump,
Jashodanagar Cross Road, near Ashirwad Restaurant,
Jashoda Nagar, Ahmedabad, Gujarat 382445
Phone: 079 3042 9008