



**PROJECT PROFILE**  
**ON**  
**NAPHTHALENE BALLS**

**2020-2021**

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*Prepared by:*

**MSME-Testing Station**

**Government of India**

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# PROJECT PROFILE

<b>1. Product</b>	<b>Naphthalene Balls</b>
<b>2. NIC Code (2008)</b>	<b>19209</b>
<b>3. Production Capacity</b>	<b>180MT per Annum. (Valued Rs. 187.2lakhs)</b>
<b>4. Month &amp; year of Preparation</b>	<b>March, 2021</b>
<b>5. Quality Standards</b>	<b>BIS Specification No. : 539-1974</b>

# PROJECT PROFILE ONNAPHTHALENE BALLS

## (A)PRODUCTS & ITS USES:-

Naphthalene  $C_{10}H_8$  is an aromatic hydrocarbon with two condensed ring aromatic compounds. Naphthalene is known to domestic users as **moth balls**. Naphthalene balls are extensively used as household preservative of woollen clothes and as a deodorant tablet for the toilets, urinals, bathrooms etc. These are manufactured from naphthalene flakes by a tablet- making machine having its ball shape die. This industry which requires a little machinery and technical know how can profitably be started on a small scale.

## (B)MARKET POTENTIAL

It is a consumable product, hence it finds extensive application in cities. General awareness is improving in cleanliness and hence this product has got good scope for growth.

## (C) IMPLEMENTATION SCHEDULE:

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

Sr. No.	Activity	Estimated Time Period
1.	Scheme preparation & approval	15 – 30 Days
2.	Registration under MSME Act 2006 and sanction of loan	30 Days
3.	Installation of plant and machinery	30 Days
4.	Commercial Production	15 Days

## (D)BASIS AND PRESUMPTIONS:

- The scheme is based on single shift of 8 hours per day and 300 working days per annum.
- The interest rate on the borrowed capital has been taken as 10 % per annum.
- The cost in respect of Raw Materials, Packing Materials has been taken at the time of preparation of project profile and may vary from place to place and time to time.
- 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 60 % for the first year, which may subsequently increase to 70%, 80% & 90 % in the second, third & fourth year respectively.

## **(E)MANUFACTURING CAPACITY**

- (a) Quantity : 180 MT  
(b) Value (Rs.) : 187.2Lakhs

## **(F)TECHNICAL ASPECTS:**

### **(1) MANUFACTURING PROCESS:**

Naphthalene flakes are fed into a jacketed vessel in which temperature is maintained at 88 ° C and an agitator stirs the material. When naphthalene melts, other ingredients like paraffin wax, camphor etc. are added and mixed thoroughly. The liquefied mass is fed into the china ball press or aluminum mold in automatic ball making machine.

After cooling the naphthalene balls are taken out and packed.

#### **(1.1) Quality Standard**

Quality parameters, grades, testing procedures, permissible limits of ingredients, physical properties and other parameters related to quality standards are laid down in BIS specification No. 539-1974.

#### **(1.2) Safety Measures –**

Special requirements are applicable for the production and storage of the raw materials, as well as the storage of the finished products. The main safety issues relate to the aromatic properties of Naphtha.

Special attention should be given to proper storage in tropical climates. Open flames and smoking must be strictly prohibited in production and storage areas. Local and Central (bulk) storage must comply with fire regulations regarding the type of cabinet and store, respectively. National safety guidelines and local legal requirements must be adhered for the storage of ingredients and the final product.

## (2) FIXED CAPITAL INVESTMENT

S.No.	Description	Value (Rs.)
(a)	<b>Land &amp; Building</b>	
	Total area 400 sq. Mtrs. on rent	15,000 Per month

<b>(b) Machinery &amp; Equipments</b>			
S.No	Description	Quantity	Value Rs.
1	Naphthalene balls making machine power operated	01 No.	1,50,000
2	MS jacketed vessels 100 ltr. capacity	01 No.	20,000
3	Heating arrangement - electric	01 No.	10,000
4	Storage Tanks 100 ltr. Capacity	03 Nos.	30,000
5	Office furniture, & miscellaneous		50,000
6	Laboratory Equipments		1,00,000
7	Pre operated expenses		40,000
8	Electrification and Installation @ 10%		40,000
	<b>Total</b>		<b>4,40,000</b>

## 3) WORKING CAPITAL REQUIREMENT:-

### (a) Raw Materials per Month:

Sr. No.	Description	Quantity	Rate (Rs.)	Value (Rs.)
01.	Naphthalene fakes (technical grade)	14250 Kg	80/- per Kg	11,40,000/-
02.	Camphor (refined grade)	12 Kg	1000/- per Kg	12,000/-
03.	Paraffin Wax	800 Kg	100/- per Kg	80,000/-
04.	Phenolic compound	50 Kg	80/- per Kg	4,000/-
<b>Total</b>				<b>12,36,000/-</b>

**(b) Packing Materials per Month:**

<b>Sr. No.</b>	<b>Description</b>	<b>Quantity (Nos.)</b>	<b>Rate (Rs.)</b>	<b>Value (Rs.)</b>
01.	Packing material LDPE bags	1,50,000 Nos.	0.25/- per bag	37,500/-
02.	Corrugated boxes for packing of 10 Kg Naphthalene balls	1500 Boxes	25/- per box	37,500/-
			<b>Total</b>	<b>75,000/-</b>

**(c) Salary & Wages Per Month :**

<b>Sr. No.</b>	<b>Description</b>	<b>Nos.</b>	<b>Rate</b>	<b>Value (Rs.)</b>
01.	Manager/ Supervisor / Chemist	01		self
02.	Unskilled labour	02	12,000	24,000
03.	Watchman/ MTS	01	10,000	10,000
			Total	34,000
	Perquisites @ 15 %			5100/-
			<b>Total</b>	<b>39,100/-</b>

**(d) Utilities Per Month :**

<b>Sr. No.</b>	<b>Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Value (Rs.)</b>
01.	Power	1000 K.W.	Rs.7.50/unit	7,500/-
02.	Water			1,000/-
			<b>Total</b>	<b>8,500/-</b>

**(e) Other Expenses Per Month :**

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<b>Sr. No.</b>	<b>Description</b>	<b>Value (Rs.)</b>
01.	Rent	15,000
02.	Telephone/Internet	1,200
03	Marketing & Traveling Expenses	5,000
04	Other Misc. Expenses	5,000
	<b>Total</b>	<b>26,200</b>

**(f) Working Capital for One Month:**

<b>Sr. No.</b>	<b>Description</b>	<b>Value (Rs.)</b>
01.	Raw Materials	12,36,000/-
02	Packing Material	75,000/-
03	Salary & Wages	39,100/-
04	Utilities	8,500/-
04.	Other Expenses	26,200/-
	<b>Total</b>	<b>13,84,800/-</b>

**(g) Working Capital for three month**

Rs. 41,54,400/-  
**Say Rs.41,55,000/-**

**(4) CAPITAL INVESTMENT**

(a) Fixed Capital Rs.4,40,000/-  
(b) Working capital for three month Rs.41,55,000/-  
**Total: Rs.45,95,000/-**

**(G) FINANCIAL ANALYSIS:**

**(a) COST OF PRODUCTION PER ANNUM :**

S. No.	Description	Value (Rs.)
01.	Recurring expenditure	1,66,20,000/-
02.	Depreciation on Machinery & Equipment's @ 10% p.a.	25,000/-
03.	Depreciation on Testing equipment's /furniture/ firefighting equipment's @ 25% p.a.	37,500/-
04.	Interest on capital investment @ 10 % p.a.	4,59,500/-
	<b>Total</b>	<b>1,71,42,000</b>
	<b>Or say</b>	<b>1,71,42,000/-</b>

**(b) TURNOVER PER ANNUM**

S.No.	Particulars	Qty.	Rate (Rs.)	Value (Rs.)
1.	By sale of naphthalene ball	180 MT	1,04,000/- per MT	1,87,20,000/-
			<b>Total</b>	<b>1,87,20,000/-</b>

**(c) NET PROFIT PER YEAR :**

Net Profit = Total turnover - Total cost of production Rs.  
= 1,87,20,000/- - 1,71,42,000/-  
= **Rs. 15,78,000/-**



**(d) PROFIT RATIO ON SALES :**

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

$$= \frac{15,78,000}{1,87,20,000/-} \times 100$$
$$= \mathbf{8.42 \%}$$

**(e) RATE OF RETURN (ROR) ON TOTAL CAPITAL INVESTMENT:**

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

$$= \frac{\mathbf{15,78,000}}{45,95,000} \times 100$$
$$= \mathbf{34.34 \%}$$

**(H) BREAK EVEN ANALYSIS:**

**(i) FIXED COST :**

<b>Sr. No.</b>	<b>Description</b>	<b>Amount (Rs.)</b>
01.	Depreciation on Machinery & Equipment's	25,000/-
02	Depreciation on Testing equipment's /furniture/ firefighting equipment's	37,500/-
03.	Interest on Total Capital Investment	4,59,500/-
04.	40 % of Salary & Wages	1,87,680/-
05.	40 % of Other Expenses	1,25,760/-
06.	40 % Utility	40,800/-
07.	Rent	1,80,000/-
	<b>Total</b>	<b>10,56,240/-</b>

**(ii) BREAK EVEN POINT (B.E.P.) :**

$$\begin{aligned} \text{B.E.P.} &= \frac{\text{Fixed Cost}}{\text{Fixed Cost} + \text{Profit}} \times 100 \\ &= \frac{10,56,240/-}{10,56,240 + 15,78,000} \times 100 \\ &= \mathbf{40.09 \%} \end{aligned}$$

**(I) NAME AND ADDRESSES OF RAW MATERIAL SUPPLIERS:-**

<b>SR.</b>	<b>DESCRIPTION</b>
1.	<b>M/s. Labdhi Chemicals,</b> Office No. 3, Building No. 1, Neel Kanth Cooperative Society, BP Cross Road No.-4, Mulund West Mumbai 400080
2.	<b>M/s. Himadri Specialty Chemicals Ltd.,</b> Ruby House, India exchange place second floor, Kolkata 700001
3.	<b>M/s. Manish Minerals and Chemicals,</b> Office No. 2/205, Second floor, Eastern Court, Chembur, Mumbai 400071

**(J) NAME AND ADDRESSES OF MACHINERY SUPPLIERS:-**

<b>Sr.</b>	<b>DESCRIPTION</b>
1.	<b>M/s Mahindra Vijay Engineering Company,</b> 13, Harshad estate, Opposite Ice Factory, Ahmadabad 380023 (Gujarat)
2.	<b>M/s. Falcon Machineries,</b> Plot No. 5317, phase 4, Near Ramol Police Chowky Cross Road, Vatva GIDC, Ahmadabad 382445(Gujarat)
3.	<b>M/sSre Latha Engineering Works,</b> G Santosh Narayana No. 10 – R Raja Mills Road, Madurai Main, Madurai 625001 (Tamil Nadu)

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