

PROJECT REPORT

Of

Napthalene Balls

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Napthalene Balls Unit**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



Lucknow Office: Sidhivinayak Building ,
27/1/B, Gokhley Marg, Lucknow-226001

Delhi Office : Multi Disciplinary Training
Centre, Gandhi Darshan Rajghat,
New Delhi 110002

Email : info@udyami.org.in
Contact : +91 7526000333, 444, 555

PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : XXXXXXXX
- 2 Constitution (legal Status) : XXXXXXXX
- 3 Father's/Spouce's Name : XXXXXXXX
- 4 Unit Address : XXXXXXXX
- Taluk/Block: _____
- District : XXXXX
- Pin: XXXXX State: _____
- E-Mail : XXXXX
- Mobile XXXXX
- 5 Product and By Product : **Napthalene Balls**
- 6 Name of the project / business activity proposed : **Napthalene Balls**
- 7 Cost of Project : Rs24.00lac
- 8 Means of Finance
- | | |
|-------------------|------------------------------|
| Term Loan | Rs.13.04 Lacs |
| KVIC Margin Money | - As per Project Eligibility |
| Own Capital | Rs.2.4 Lacs |
| Working Capital | Rs.8.57 Lacs |
- 9 Debt Service Coverage Ratio : 3.74
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 8 Months
- 12 Break Even Point : 33%
- 13 Employment : 11 Persons
- 14 Power Requirement : 20.00 HP
- 15 Major Raw materials : Wheat flours sugar
- 16 Estimated Annual Sales Turnover : 52.65 Lacs
- 16 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (2500 Sq Ft)	-
Plant & Machinery	12.75
Furniture & Fixtures	1.00
Pre-operative Expenses	0.74
Working Capital Requirement	9.52
Total	24.00

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	2.40
Term Loan	13.04
Workign Capital Finance	8.57
Total	24.00

	General	Special
Beneficiary's Margin Money (% of Project Cost)	10%	5%

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
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PROJECT REPORT ON NAPHTHALENE BALLS



Introduction: Naphthalene balls are used as a moth repellent. Now para-dichloro benzene in cubcake form is also used for the purpose. The scheme aims at utilizing crude Naphthalene available from coke oven batteries of steel plants. However, availability of raw materials must be ensured before setting up the unit.

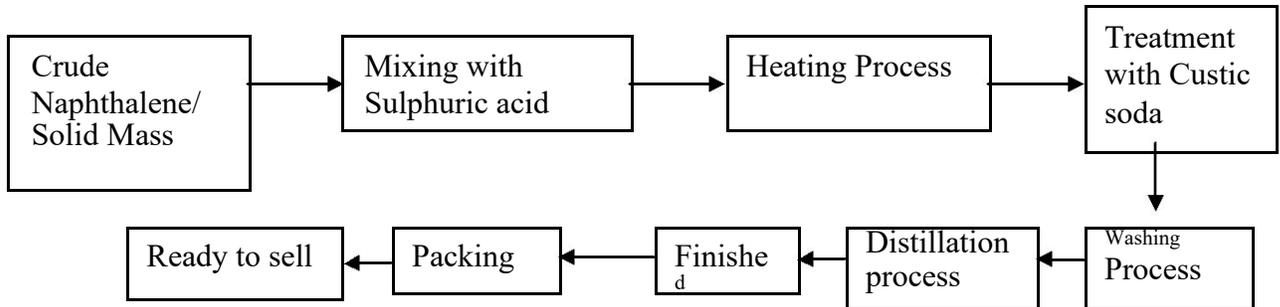
Naphthalene Balls are used to prevent the attack of insects. They are extensively used as a household preservative of woolen clothes and as a deodorant tablet for the toilets, urinals, bathrooms, etc. These are manufactured from naphthalene flakes by a tablet making machine having its ball shape die. This industry requires a little machinery and technical know-how. Naphthalene ball manufacturing can profitably be started on a small scale basis.

Market Potential: The demand of Naphthalene balls is increasing gradually with the increase of population and urbanization and improving living conditions. In view of this there seems good scope of the product.

Production process: The crude Naphthalene is available either in the form of solid

mass or liquid. The latter contains 40 to 60 per cent Naphthalene. The crude Naphthalene is put into kettle and meted by steam or suitable heating arrangements and then treated with sulphuric acid. The acid treated Naphthalene is then neutralized with caustic soda and washed several times with water in hot condition. After treatment with caustic soda, Naphthalene is purified by steam distillation or sublimation process. The powered Naphthalene is covered to balls.

Process flow:



Production Target: Assuming that the Unit will operate for Single Shift of 8 hours per day for 300 working days the annual installed capacity is estimated 150 M.T Naphthalene Balls

Raw Materials: The principal raw material of the Unit is crude naphthalene, Castic soda, Sulphuric acid, and packing materials, which is available from oil refineries and other suppliers.

Naphthalene Balls Making Machine

The main required machine is naphthalene balls making machine. Two types of machines options are there. You can go for either manual operated or power operated. However, you can produce more uniformed and quality finished product from a power operated machine. Apart from this, you will also need to have MS jacketed vessels, heating arrangements, storage tanks, weighing scale and pouch sealing machine. The list of machinery includes:

- Steam jacketed M.S. Kettle
- Steam distillation kettle
- Sulphuric acid storage tanks
- Delivery pump
- Edge runner
- Tablet making machine rotary type,
- Miscellaneous tools and equipment.

Utility : The Unit shall need a total connected load of 20KW Unit will need 5000 Liters of water per day, which may be available at the site.

Pollution Control: Since the unit uses hazardous chemicals, it is necessary to adopt norms for effluent disposal and to obtain NOC from pollution control board

FINANCIAL ASPECTS

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Capital Account	2.40	2.40	2.40	2.40	2.40
Retained Profit	7.05	16.63	27.75	41.36	57.30
Term Loan	13.04	9.78	6.52	3.26	0.53
Cash Credit	8.57	8.57	8.57	8.57	8.57
Sundry Creditors	0.67	0.78	0.90	1.01	1.12
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	32.09	38.56	46.57	57.07	70.45
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	13.75	13.75	13.75	13.75	13.75
Gross Dep.	1.96	3.68	5.15	6.40	7.47
Net Fixed Assets	11.79	10.07	8.60	7.35	6.28
Current Assets					
Sundry Debtors	2.63	3.36	3.85	4.34	4.83
Stock in Hand	7.56	8.82	10.08	11.34	12.60
Cash and Bank	7.61	13.55	21.02	30.72	43.08
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	32.09	38.56	46.57	57.07	70.45
	-	-	-	-	-

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Share Capital	2.40	-			
Reserve & Surplus	7.83	10.64	13.91	17.01	19.93
Depreciation & Exp. W/off	1.96	1.72	1.47	1.25	1.07
Increase in Cash Credit	8.57	-	-	-	-
Increase In Term Loan	13.04	-	-	-	-
Increase in Creditors	0.67	0.11	0.11	0.11	0.11
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	34.83	12.51	15.53	18.41	21.16
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	13.75	-	-	-	-
Increase in Stock	7.56	1.26	1.26	1.26	1.26
Increase in Debtors	2.63	0.73	0.49	0.49	0.49
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	3.26	3.26	3.26	2.73
Taxation	0.78	1.06	2.78	3.40	3.99
TOTAL :	27.23	6.57	8.06	8.71	8.80
Opening Cash & Bank Balance	-	7.61	13.55	21.02	30.72
Add : Surplus	7.61	5.95	7.46	9.70	12.36
Closing Cash & Bank Balance	7.61	13.55	21.02	30.72	43.08

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIRD YEAR	IVTH YEAR	VTH YEAR
<u>A) SALES</u>					
Gross Sale	52.65	67.28	77.03	86.78	96.53
Total (A)	52.65	67.28	77.03	86.78	96.53
<u>B) COST OF SALES</u>					
Raw Mateiral Consumed	28.80	33.60	38.40	43.20	48.00
Elecricity Expenses	1.72	2.01	2.29	2.58	2.86
Repair & Maintenance	-	0.67	0.77	0.87	0.97
Labour & Wages	5.54	6.10	6.71	7.38	8.12
Depreciation	1.96	1.72	1.47	1.25	1.07
Consumables,packaging and Other Expenses	2.63	3.36	3.85	4.34	4.83
Cost of Production	40.66	47.46	53.49	59.62	65.84
Add: Opening Stock /WIP	-	4.68	5.46	6.24	7.02
Less: Closing Stock /WIP	4.68	5.46	6.24	7.02	7.80
Cost of Sales (B)	35.98	46.68	52.71	58.84	65.06
C) GROSS PROFIT (A-B)	16.67	20.59	24.32	27.94	31.46
	32%	31%	32%	32%	33%
D) Bank Interest (Term Loan)	1.12	1.36	0.98	0.61	0.24
Bank Interest (C.C. Limit)	0.86	0.86	0.86	0.86	0.86
E) Salary to Staff	5.81	6.39	7.03	7.73	8.50
F) Selling & Adm Expenses Exp.	1.05	1.35	1.54	1.74	1.93
TOTAL (D+E)	8.84	9.95	10.41	10.93	11.53
H) NET PROFIT	7.83	10.64	13.91	17.01	19.93
I) Taxation	0.78	1.06	2.78	3.40	3.99
J) PROFIT (After Tax)	7.05	9.58	11.13	13.61	15.95

COMPUTATION OF MANUFACTURING OF NAPHTHALENE BALLS**Items to be Manufactured Napthalene Balls**

Manufacturing Capacity per day	-	0.50	MT
	-		
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		150.00	MT
Year		Capacity	MT
		Utilisation	
IST YEAR		60%	90
IIND YEAR		70%	105
IIIRD YEAR		80%	120
IVTH YEAR		90%	135
VTH YEAR		100%	150

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material MT	Recovery	Unit Rate of /MT	Total Cost Per Annum (100%)
Crude naphthalene, Custic soda, Sulphuric acid, and packing materials,	100%	150.00	95%	32,000.00	48.00
Total (Rounded off in lacs)					48.00
Annual Consumption cost	(In Lacs)				48.00

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	60%	28.80
IIND YEAR	70%	33.60
IIIRD YEAR	80%	38.40
IVTH YEAR	90%	43.20
VTH YEAR	100%	48.00

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>Finished Goods</u>					
(30Days requirement)	4.68	5.46	6.24	7.02	7.80
<u>Raw Material</u>					
(30 Days requirement)	2.88	3.36	3.84	4.32	4.80
Closing Stock	7.56	8.82	10.08	11.34	12.60

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total
			Amount
Stock in Hand			7.56
Sundry Debtors			2.63
		Total	10.19
Sundry Creditors			0.67
Working Capital Requirement			9.52
Margin			0.95
Working Capital Finance			8.57

BREAK UP OF LABOUR

Particulars	Wages	No of	Total
	Per Month	Employees	Salary
Chemist	12,500.00	1	12,500.00
Skilled Worker	9,000.00	2	18,000.00
Unskilled Worker	6,000.00	4	24,000.00
			42,000.00
Add: 10% Fringe Benefit			4,200.00
Total Labour Cost Per Month			46,200.00
Total Labour Cost for the year (In Rs. Lakhs)		7	5.54

BREAK UP OF SALARY

Particulars	Salary	No of	Total
	Per Month	Employees	Salary
Manager	15,000.00	1	15,000.00
Accountant	9,000.00	1	9,000.00
Sales	10,000.00	2	20,000.00
Total Salary Per Month			44,000.00
Add: 10% Fringe Benefit			4,400.00
Total Salary for the month			48,400.00
Total Salary for the year (In Rs. Lakhs)		4	5.81

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	-	12.75	1.00	13.75
	-	-	12.75	1.00	13.75
Less : Depreciation	-	-	1.91	0.05	1.96
WDV at end of Ist year	-	-	10.84	0.95	11.79
Additions During The Year	-	-	-	-	-
	-	-	10.84	0.95	11.79
Less : Depreciation	-	-	1.63	0.10	1.72
WDV at end of IIInd Year	-	-	9.21	0.86	10.07
Additions During The Year	-	-	-	-	-
	-	-	9.21	0.86	10.07
Less : Depreciation	-	-	1.38	0.09	1.47
WDV at end of IIIrd year	-	-	7.83	0.77	8.60
Additions During The Year	-	-	-	-	-
	-	-	7.83	0.77	8.60
Less : Depreciation	-	-	1.17	0.08	1.25
WDV at end of IV year	-	-	6.66	0.69	7.35
Additions During The Year	-	-	-	-	-
	-	-	6.66	0.69	7.35
Less : Depreciation	-	-	1.00	0.07	1.07
WDV at end of Vth year	-	-	5.66	0.62	6.28

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	13.04	13.04	-	-	13.04
	IInd Quarter	13.04	-	13.04	0.37	-	13.04
	IIIrd Quarter	13.04	-	13.04	0.37	-	13.04
	Ivth Quarter	13.04	-	13.04	0.37	-	13.04
					1.12	-	
IIND YEAR	Opening Balance						
	Ist Quarter	13.04	-	13.04	0.37	0.82	12.23
	IInd Quarter	12.23	-	12.23	0.35	0.82	11.41
	IIIrd Quarter	11.41	-	11.41	0.33	0.82	10.60
	Ivth Quarter	10.60	-	10.60	0.30	0.82	9.78
					1.36	3.26	
IIIRD YEAR	Opening Balance						
	Ist Quarter	9.78	-	9.78	0.28	0.82	8.97
	IInd Quarter	8.97	-	8.97	0.26	0.82	8.15
	IIIrd Quarter	8.15	-	8.15	0.23	0.82	7.34
	Ivth Quarter	7.34	-	7.34	0.21	0.82	6.52
					0.98	3.26	
IVTH YEAR	Opening Balance						
	Ist Quarter	6.52	-	6.52	0.19	0.82	5.71
	IInd Quarter	5.71	-	5.71	0.16	0.82	4.89
	IIIrd Quarter	4.89	-	4.89	0.14	0.82	4.08
	Ivth Quarter	4.08	-	4.08	0.12	0.82	3.26
					0.61	3.26	
VTH YEAR	Opening Balance						
	Ist Quarter	3.26	-	3.26	0.09	0.82	2.45
	IInd Quarter	2.45	-	2.45	0.07	0.82	1.63
	IIIrd Quarter	1.63	-	1.63	0.05	0.55	1.08
	Ivth Quarter	1.08	-	1.08	0.03	0.55	0.53
					0.24	2.73	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>CASH ACCRUALS</u>	9.01	11.30	12.59	14.86	17.01
Interest on Term Loan	1.12	1.36	0.98	0.61	0.24
Total	10.13	12.66	13.58	15.47	17.25
<u>REPAYMENT</u>					
Instalment of Term Loan	3.26	3.26	3.26	2.73	2.73
Interest on Term Loan	1.12	1.36	0.98	0.61	0.24
Total	4.39	4.62	4.24	3.34	2.97
DEBT SERVICE COVERAGE RAT	2.31	2.74	3.20	4.63	5.81
AVERAGE D.S.C.R.			3.74		

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	9.00	10.50	12.00	13.50
Production	90.00	105.00	120.00	135.00	150.00
	90.00	114.00	130.50	147.00	163.50
Less : Closing Stock	9.00	10.50	12.00	13.50	15.00
Net Sale	81.00	103.50	118.50	133.50	148.50
Sale Price per MT	65,000.00	65,000.00	65,000.00	65,000.00	65,000.00
Sale (in Lacs)	52.65	67.28	77.03	86.78	96.53

COMPUTATION OF ELECTRICITY**(A) POWER CONNECTION**

Total Working Hour per day	Hours	8	
Electric Load Required	HP	20	
Load Factor		0.7460	
Electricity Charges	per unit	8.00	
Total Working Days		300	
Electricity Charges (8 Hrs Per day)			2,86,464.00
Add : Minimim Charges (@ 10%)			

(B) D.G. SET

No. of Working Days		300	days
No of Working Hours		-	Hour per day
Total no of Hour		-	
Diesel Consumption per Hour		8	
Total Consumption of Diesel		-	
Cost of Diesel		65.00	Rs. /Ltr
Total cost of Diesel		-	
Add : Lube Cost @15%		-	
Total		-	
Total cost of Power & Fuel at 100%			2.86

Year	Capacity	Amount (in Lacs)
IST YEAR	60%	1.72
IIND YEAR	70%	2.01
IIIRD YEAR	80%	2.29
IVTH YEAR	90%	2.58
VTH YEAR	100%	2.86

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	52.65	67.28	77.03	86.78	96.53
Less : Op. WIP Goods	-	4.68	5.46	6.24	7.02
Add : Cl. WIP Goods	4.68	5.46	6.24	7.02	7.80
Total Sales	57.33	68.06	77.81	87.56	97.31
Variable & Semi Variable Exp.					
Raw Material & Tax	28.80	33.60	38.40	43.20	48.00
Electricity Exp/Coal Consumption at 85%	1.46	1.70	1.95	2.19	2.43
Manufacturing Expenses 80%	2.11	3.23	3.70	4.17	4.63
Wages & Salary at 60%	6.81	7.49	8.24	9.07	9.97
Selling & administrative Expenses 80%	0.84	1.08	1.23	1.39	1.54
Intt. On Working Capital Loan	0.86	0.86	0.86	0.86	0.86
Total Variable & Semi Variable Exp	40.88	47.96	54.38	60.87	67.44
Contribution	16.45	20.10	23.43	26.69	29.86
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.53	0.81	0.92	1.04	1.16
Electricity Exp/Coal Consumption at 15%	0.26	0.30	0.34	0.39	0.43
Wages & Salary at 40%	4.54	4.99	5.49	6.04	6.65
Interest on Term Loan	1.12	1.36	0.98	0.61	0.24
Depreciation	1.96	1.72	1.47	1.25	1.07
Selling & administrative Expenses 20%	0.21	0.27	0.31	0.35	0.39
Total Fixed Expenses	8.62	9.45	9.52	9.68	9.93
Capacity Utilization	60%	70%	80%	90%	100%
OPERATING PROFIT	7.83	10.64	13.91	17.01	19.93
BREAK EVEN POINT	31%	33%	33%	33%	33%
BREAK EVEN SALES	30.05	32.01	31.62	31.76	32.36

Steam jaeketed M.S Kettle with stirrer of 3HP Motor capacity 2500ltrs for acid treatment	2	1,75,000.00	3,50,000.00	
Steam jaeketed M.S Kettle with stirrer of 3HP Motor with complete accessories capacity 2000 ltrs for neutralization 2500ltrs for acid treatment	2	1,45,000.00	2,90,000.00	
Steam jaeketed M.S Kettle with condenser and steam injection etc and other complete accessories capacity 2000 ltrs.	1	1,20,000.00	1,20,000.00	
Sulphuric acid storage tanks capacity 10MT Delivery pump and 1HP motor and pipeline etc.	2	75,000.00	1,50,000.00	
Edge runner 4" dia 7.5 HP motor with complete accessories	2	45,000.00	90,000.00	
Misc. tools and equipments	LS		50,000.00	
Boiler 100PSI 250kg, evaporation rate with chimney etc.	1		1,50,000.00	
Electrification	LS		75,000.00	
TOTAL			12,75,000.00	

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