

## *Project Profile*

<b>Name of the Product</b>	<b>Detergent Powder</b>
<b>Month &amp; Year of Preparation</b>	<b>June – 2020</b>
<b>Prepared by</b>	<b>MSME Development Institute, Shaheed, Captain Gaur Marg, Okhla Phase III, New Delhi - 110020 +91-11 2683 8068</b>

## **Introduction :**

Detergents are surfactants or a mixture of surfactants, which exhibit high-quality cleansing properties in diluted solutions and mostly soluble in hard water. Alkyl benzenesulfonates and its compounds are the main ingredients of the detergent.

In the household context detergents are referred as laundry detergents and foaming agents as a cleaning material. Detergents are usually available as powders or concentrated solutions. The household detergents are for daily household cleaning purposes while industrial detergents are used for the industrial needs.

The main advantage of detergent powders is that they are easy to use and remove the dust, dirt, grease, oil and other environmental pollutants with ease and effectiveness. Detergent powders can be used for hand wash as well as machine wash applications.

## **Market Demand:**

The rapid changing lifestyles of people and global modernization are the key drivers for the detergent industry. Industries like chemical, paint, textile, paper and automobile are the key factors and demand drivers for the use of industrial detergents.

Rising population and growing disposable income of the consumers enables increase in demand for the clothing, hospitality, and the end users are major driver for detergent market growth. On the other hand there are some restraints to the growth of detergent market such as government rules, norms, and regulations, and environmental reforms.

## **Production Target:**

It is proposed to manufacture 16,00,000 nos. of PET Bottles per year in working capacity of 8 hours per day work & total 300 working days in a year.

## **Basis & Presumptions:**

1. Single shift of eight hours a day, 25 days a month and 300 days in a year is presumed.
2. Efficient Machines and workers are also presumed.
3. Labour rates are as per the prevailing rates have been considered.
4. 1-2% of raw material may be wasted during processing.
5. 14% rate of interest both for fixed and working capital has been taken into account.
6. The entrepreneur is expected to raise 20-25% of the capital as margin money.
7. Costs of machinery and equipment are based on average prices enquired from machinery manufacturers at the time of preparation of the project profile and may vary from Supplier to Supplier.

### **Implementation Schedule:**

<i>Sr. No.</i>	<i>Description of activities</i>	<i>Time</i>
1.	Preparation of project profile	2 Weeks
2.	Selection of site	2 Weeks
3.	Machinery installation and procurement of Raw material	4 Weeks
4.	Recruitment of staff and trial run	2 Weeks
5.	Availability of finance	2 Weeks
	Total Time*	12 Weeks

\*These activities may be carried out simultaneously to expedite the process.

### **Environmental Pollution:**

The unit shall work as per the Government guidelines in Industrial Area and not produce any pollution hazards. The entrepreneurs are advised to take "No Objection Certificate" from the State Pollution Control Board.

### **Process of Manufacture:-**

Acid slurry is first neutralized with soda ash and mixture is kept for one hour for completion of reaction. Other ingredients such as STPP, TSP, SLES liquid, Tinopal, Glauber's salt, CMC, Colors, Perfume/Fragrance, Colored Granules etc. are then blended to the neutralized acid slurry with continuous mixing. The mixture is then dried and packed in suitable packagings.

### **Quality Control:-**

As per IS: 4955-1968: Specification for Synthetic Detergents for household use.

### **Financial Aspects:**

#### **Fixed Capital:**

Land at Industrial Estate/Area	Owned
Building (work and office building,10,000 sq ft)	Owned

#### **Machinery:**

Sr. No.	Machine / Tools	Qty.	Value in (Rs.)
1.	Powder mixing machine	1	2,50,000
2.	Cage Mill machine/Drier	1	1,30,000
3.	Packaging Machine	1	50,000
4.	Weighing Machine (Table top & Platform)	2	55,000
5.	Furniture	LS	20,000
6.	Preliminary & Pre-operative	LS	10,000
7.	Miscellaneous		5,000
	Total		5,20,000

**Working Capital (per month)****Personnel**

Sr. No.	Detail	No. of employees	Amount (Rs.)
1.	Manager	Self	-
2.	Skilled labour	1	18,000
3.	Unskilled labour	1	15,000
	Total		33,000

**Raw material (Per Month):**

Sr. No.	Item	Required Unit	Value (Rs)
1.	Soda Ash @ 26	2500	65,000
2.	Acid Slurry @ 85	500	42,500
3.	SLS/SLES @ 70	25	1,750
4.	TSP @ 40	350	14,000
5.	CMC @ 120	100	12,000
6.	Tinopal CBS-X @ 1800	5	9,000
7.	G-Salt @ 6	850	5,100
8.	Dolomite @ 3	250	750
9.	Colored Granules @ 10	150	1500
	Total (per month)		1,51,600
	Total (per annum)		18,19,200

**Other Contingent Expenditure (Per Month):**

Sr. No.	Details	Amount (Rs.)
1.	Marketing & advertisement expenditure	10,000
2.	Travel	5,000
3.	Telephone	1,000
4.	Miscellaneous expenses	10,000
	Total	26,000

**Utility (per month):**

Electricity & Water 20,000/-

**Total Recurring Expenditure (per month):**

Sr. No.	Detail	Amount (Rs.)
1.	Raw material	1,51,600
2.	Other Contingent Expenditure	26,000
3.	Personnel	33,000
4.	Utility	20,000
	Total (Rs.)	2,30,600

Working capital is considered for a working capital Cycle of two months with working expenses

Hence, working capital for two month ( Rs.) 3,03,200/-

**Total Capital Investment:**

Fixed capital	5,20,000
Working capital	3,03,200
Total (Rs.)	8,23,200

**Cost of Production (per annum):**

Sr. No.	Detail	Amount (Rs.)
1.	Depreciation on machinery @ 10%	52,000
2.	Depreciation on furniture and equipment @ 20%	4,000
3.	Recurring exp of 12 months	18,19,200
4.	Interest on total investment. @ 14%	94,024
	Total	19,69,224

**Turnover (Per Annum):**

By selling 55,000 units of detergent packets @ Rs 50 per/kg	Rs. 27,50,000
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**Profit:**

Turn over – Cost of production	Profit per Annum
Rs. 27,50,000- 19,69,224	Rs. 7,80,776

$$\text{Rate of return:} = \frac{\text{Profit} \times 100}{\text{Investment}} = 94\%$$

$$\text{Net Profit Ratio:} = \frac{\text{Profit} \times 100}{\text{Turnover}} = 28.39\%$$

**Break Even Analysis:**

**Fixed cost:**

Depreciation on machinery	52,000
Depreciation on furniture	4,000
Interest @ 14%	94,024
40% of salary	1,58,400
40% of other expenditure	1,24,800

Total

4,33,224/-

$$\begin{aligned} \text{B.E.P.} &= \frac{\text{Fixed cost} \times 100}{\text{Fixed cost} + \text{profit}} = \\ &= \frac{4,33,224 \times 100}{4,33,224 + 7,80,776} = 35.68 \% \end{aligned}$$

**Addresses of Machinery Suppliers:**

1. The Scientific Apparatus Company, 40-A, Chaulpathy Road Belegkata, Kolkata - 700010, West Bengal
2. Sakun Engineers, 33/A, New Arbuda Estate, New Ranip, Ahmedabad - 382470, Gujarat.
3. Kapila Krishi Udyog, 127/15, S Block, Juhi, Hameerpur Road near baradevi chauraha, Kanpur-208014, Uttar Pradesh