LIQUID DETERGENT

1. INTRODUCTION:
   Liquid detergent is a type of detergent i.e. cleaning agent. Its popular use is to wash woolen cloth but it is also used for washing of utensils specially glass and crockery, and for automobile wash. Now a days it is widely used in washing machines, laboratories etc.

2. MARKET:
   There are few brands are available in the market which is for woolen cloth washing. But few MSME units are also having good marketing their products. Considering the fact that it does not contain any filler material which deposited on the cloth surface, its popularity is increasing in conscious people. There is good potential of this product of good quality and economical prices.

3. BASIS & PRESUMPTIONS:
   1. The basis of calculation of production capacity is on single shift basis and working of 25 days per month.
   2. Rate of interest has been taken @ 18% per annum on an average on working capital and total capital investment.
   3. Whereas some names of manufacturers and suppliers of raw materials, machinery & equipments are at the end of the profile are by no means exclusive or exhaustive.
   4. The cost of machinery & equipments indicated in the profile are approximate those prevailing at the time of preparation of the profile.
   5. Non-refundable deposits of preparation of project report may be considered under pre-operative expenses.
   6. The provision made in raw materials, utilities, overhead etc. is drawn on the basis of local market conditions/ observations and in approximate. The entrepreneur may find out the exact cost from the concerned sources.
   7. License is required under Drug & Cosmetic Act from state drug controller.

4. IMPLEMENTATION SCHEDULE
   1. Registration of the unit with DIC 10 days
   2. Procurement of finance through Bank or other financial institutions. 45 days
   3. Procurement of machines 30 days
   4. Commercialization of the unit/ Trial production. 10 days
5. **TECHNICAL ASPECTS**:

1. **Process of manufacture**:

   It is a neutralization process of Acid slurry by Caustic Soda keeping pH 7 to 9. Acid slurry and water is mixed slowly in the mixer, after that it is neutralized by the aq. Solution of caustic soda to get the required pH. AOS is used as foam booster while urea is a buffering agent and also create transparency. Lastly colour and perfume is added.

   **Quality Specification**:

   It may be manufactured as per customer’s specification

2. **Production Capacity**:

<table>
<thead>
<tr>
<th>Capacity</th>
<th>75% Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed</td>
<td>Utilization(I Yr.)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
   a) Quantity       | 1,35,000 Kg   | 1,01,250 Kg   |
   b) Value (in Rs.) | 82,83,000     | 62,12,250     |

3. **Power Requirement**:

   Connected Load : 5 KWH

4. **Pollution Control**:

   Though there is no discharge of effluent during manufacturing of Liquid detergent but care should be taken to avoid the chemicals in washings.

5. **Energy Conservation**:

   The adequate measures for energy conservation and illumination will reduce the wastage of energy.
6. **FINANCIAL ASPECTS** :

I. *Fixed Capital* :

1. *Land & Building* :

   (value in Rs.)

   - Land 200 sq. meter @ 200/- sq.m. 
     - 40,000
   - Covered Area – 150 sq.m. @ 2200/- sq.m. 
     - 3,30,000

   **Rs. 3,70,000**

2. *Machinery & Equipments* :

   a) *Production unit*

<table>
<thead>
<tr>
<th>Details</th>
<th>Qty/No.</th>
<th>Price (in Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. S.S. Vessel with stirrer, low speed Cap. 200 kg</td>
<td>1</td>
<td>50,000</td>
</tr>
<tr>
<td>2. Bottle filling machine Semi automatic</td>
<td>1</td>
<td>35,000</td>
</tr>
<tr>
<td>3. Storage Tanks, SS, Cap. 200 Liters</td>
<td>2</td>
<td>30,000</td>
</tr>
<tr>
<td>4. Tools &amp; Misc. equipments LS</td>
<td></td>
<td>5,000</td>
</tr>
<tr>
<td>6. Testing &amp; laboratory equipments LS</td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>7. Installation &amp; Electrification - charges @ 10% of machinery</td>
<td>-</td>
<td>13,500</td>
</tr>
<tr>
<td>8. Office furniture, equipment &amp; fixtures. LS</td>
<td></td>
<td>20,000</td>
</tr>
</tbody>
</table>

   **Rs. 1,73,500**

3. *Pre-operative Expenses*  

   10,000
Total Fixed Capital :

Rs. 3,70,000 + 1,73,500 + 10,000 = 5,53,500

II. Working Capital :

1. Personnel :

<table>
<thead>
<tr>
<th>Designation</th>
<th>No.</th>
<th>Salary (PM)</th>
<th>Total (in Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Manager/ Chemist</td>
<td>1</td>
<td>8000/-</td>
<td>8,000</td>
</tr>
<tr>
<td>2. Skilled Worker</td>
<td>1</td>
<td>5000/-</td>
<td>5,000</td>
</tr>
<tr>
<td>3. Semiskilled Worker</td>
<td>2</td>
<td>3000/-</td>
<td>6,000</td>
</tr>
<tr>
<td>4. Sales man</td>
<td>2</td>
<td>3500/-</td>
<td>7,000</td>
</tr>
</tbody>
</table>

26,000

Perquisites @ 15% of salaries

3,900

29,900

2. Raw Material : (PM)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Qty/kg</th>
<th>Rate(Rs)</th>
<th>Value(Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acid Slurry – 80%</td>
<td>2115</td>
<td>85</td>
<td>1,79,775</td>
</tr>
<tr>
<td>2. Caustic Soda</td>
<td>220</td>
<td>30</td>
<td>6,600</td>
</tr>
<tr>
<td>3. AOS</td>
<td>175</td>
<td>46</td>
<td>8,050</td>
</tr>
<tr>
<td>4. Urea</td>
<td>1270</td>
<td>20</td>
<td>25,400</td>
</tr>
<tr>
<td>5. Colour</td>
<td>35</td>
<td>400</td>
<td>14,000</td>
</tr>
<tr>
<td>6. Perfume</td>
<td>8</td>
<td>600</td>
<td>4,800</td>
</tr>
<tr>
<td>7. Plastic bottles &amp; Canes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500 ml cap</td>
<td>8100 No.</td>
<td>8</td>
<td>64,800</td>
</tr>
<tr>
<td>5 litre cap</td>
<td>890 No.</td>
<td>25</td>
<td>22,250</td>
</tr>
<tr>
<td>8. Corrugated boxes</td>
<td>LS</td>
<td>-</td>
<td>10,000</td>
</tr>
</tbody>
</table>

3,35,675
3. **Utilities (PM)**:

- Power and Electricity (1000 KWH @ 6/-) : 6,000
- Water : 1,000
- **Total Utilities** : 7,000

4. **Other Contingent Expenses (PM)**:

1. Postage & Telephone : 2,000
2. Consumable Store : 2,000
3. Repair & Maintenance : 2,000
4. Transport charges : 7,000
5. Advertisement & Publicity : 17,000
6. Insurance : 1,000
7. Sales Expenses : 7,000
8. Misc. Expenditure : 2,000
- **Total Other Contingent Expenses** : 40,000

5. **Total Recurring Expenditure (P.M.)**:

1. Personnel : 29,900
2. Raw material : 3,35,675
3. Utilities : 7,000
4. Other contingent expenses : 40,000
- **Total** : 4,12,575

6. **Total Working Capital (For 3 months)**:

Rs. 4,12,575 X 3 : 12,37,725
7. **Total Capital Investment** :

1. Fixed Capital  
   \[ 5,53,500 \]
2. Working Capital (3 months)  
   \[ 12,37,725 \]
   \[ 17,91,225 \]
   Say \[ 17,91,000 \]

8. **Financial Analysis** :

A. **Cost of Production (Per Annum)** :

1. Total recurring cost \[ 49,50,900 \]
2. Depreciation on building @ 5% per annum \[ 16,500 \]
3. Depreciation on machinery & equipment @ 10% \[ 14,850 \] per annum
4. Depreciation on furniture & fixtures @ 20% \[ 5,000 \] per annum
5. Interest on total capital investment @ 18% \[ 3,22,380 \] per annum

\[ \text{Total Cost of Production} = 53,09,630 \]
Say \[ 53,10,000 \]

B. **Turnover (Per Annum)** :

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty.(No)</th>
<th>Rate(Rs.)</th>
<th>Value(in Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Detergent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. 500 ml</td>
<td>96,000</td>
<td>32.00</td>
<td>30,72,000</td>
</tr>
<tr>
<td>2. 5 Litre</td>
<td>10,644</td>
<td>295.00</td>
<td>31,39,980</td>
</tr>
</tbody>
</table>

\[ \text{Total Turnover} = 62,11,980 \]
C. Net Profit (Per Annum) :
(Before Income-Tax)
Rs. 62,11,980 – 53,10,000
Say 9,01,980

D. Net Profit Ratio :
14.50 %

E. Rate of Return :
50.00 %

F. B.E.P. :
43.00 %

10. Address of machinery manufacturers & suppliers :

4. M/s Corporated Engg., 7, Chitranjan Avenue, Kolkata

11. Address of raw material suppliers :
Available with local dealers.

12. Resource Centre of Technology :
Hercourt Butler Technological Institute, Kanpur.
Technical Consultants.