CALCIUM CHLORIDE

I. INTRODUCTION:

Calcium chloride is an important chemical used in different industries including petroleum refineries. It is also used as antifreeze and as an anti-dust for manufacturing brine. It finds extensive use as refrigeration brine and in roads and for freeze proofing of bulk shipment of materials such as coal, iron and other minerals

II. MARKET POTENTIAL:

As the use of chemical is going up by 10% every year there is a good scope for the manufacture of calcium chloride.

III. BASIS AND PRESUMPTIONS:

The unit will work for 8hours per day for 300 working days and utilise 50% of the installed capacity of 300 tons of production per annum

IV. IMPLEMENTATION SCHEDULE:

The unit requires 6 months time set up

V. TECHNICAL ASPECTS:

1.Process of Manufacturing :

Burnt lime is treated with Hcl in PVC tanks. The addition of Hcl is so calculated and adjusted that almost a neutral solution of calcium chloride is obtained. The clear solution of calcium chloride, thus obtained is decanted from the PVC tanks leaving insoluble impurities at the bottom. The solution is transferred to evaporators, which are heated directly by using rice husk or coal as fuel. Suitably concentrated solution is then taken to the crystalliser. The product is then crystallised and dried. The finalised product is packed in polyethylene lined hessian bags.

2.Quality Specification

80% purity

3.Production Capacity per annum

Quantity: 150 ton

Value: Rs.1012500

4.Motive Power :

5HP

VI. TOTAL CAPITAL INVESTMENTS

S.No	Description	Value Rs.
1	Fixed Capital	115000
2	Working capital	77150
	Total cost	**192150**

VII. MEANS OF FINANCE

1.Promoter's Contribution (5% of total cost) 9608
2.PMRY subsidy (15% of total cost or Rs.7500,whichever is less) 7500
3.Bank loan[total cost-(Promoter's Contribution+ PMRY subsidy) 175042

VIII FINANCIAL ASPECTS

1. FIXED CAPITAL

i.) Land & Buildings: 200 sft of covered premises for a rent of Rs.1500 pm.

ii)Machinery & Equipment

S.No	Description	Quantity	Value Rs.
1	Plastic Drum	20 nos.	6000
2	MS Reactor-capacity 500 ltrs.	3 nos	22500
3	Coal Fired Brickline	1	50000
4	FRP Crystallisers		20000
5	Steel Almirahs		3000
6	Fan		1500
7	Other pre-operative expenses		12000
	Total		**115000**

2. WORKING CAPITAL

i.Staff & Labour per month

S.No	Designation	No	@ Rs.	Value Rs.
1	Manager	1	1500	1500
2	Worker	8	1000	8000
	Total			**9500**

ii)Raw Material (p.m.)

S.No	Description	Quantity	Value Rs.
1	Hydrochloric acid	7 ton	28000
2	Lime	7 ton	21000
3	Miscellaneous		2500
	Total		**51500**

iii. Utilities per month

S.No.	Description	Value Rs.
1	Power 5 HP	3000
2	Water 1000 ltr	1250
3	Coal	2000
	Total	**6250**

iv.Other expenses per month

S.No	Description	Value Rs.
1	Packing materials	3150
2	Postages, telephone, stationery, misc.expenses	1250
3	Transport, conveyance	4000
	Total	**8400**

v.Total working capital per month

S.No	Description	Value Rs,.
1	Rent	1500
2	Staff and labour	9500
3	Raw materials	51500
4	Utilities	6250
5	Other expenses.	8400
	Total	**77150**

IX. COST OF PRODUCTION PER ANNUM

S.No	Description	Value Rs.
1	Total working capital	925800
2	Depreciation	11500
3	Interest	28824
	Total	**966124**

X. TURNOVER PER YEAR

S.No	Item	Quantity	Rate	Value Rs.
1	Calcium chloride-80% purity	150 tons	6750	1012500
	Total			**1012500**

XI. FIXED COST PER YEAR

S.No	Description	Value Rs.
1	Depreciation	11500
2	Interest	28824
3	Rent	18000
4	40% of salaries & wages	45600
5	40% of other expenses (utilities + OE)	70320
	Total	**174244**

XII. PROFIT ANALYSIS

Net Profit : sale-total cost=1012500-966124 =Rs.46376
% of Profit on Sale: Profit / Sale x100=58527/1012500]100=4.58%
% of Return on Investment: Profit / (Investment) x 100=84212/141250]100=24.14%
Break-Even Analysis : FC / (FC+Profit) x100=129988/129988+84212]100=78.98%

XIII. MACHINERY SUPPLIERS & RAW MATERIAL SUPPLIERS

Locally available