

## **PROJECT REPORT**

### **Of SULPHUR POWDER**

#### **PURPOSE OF THE DOCUMENT**

This particular pre-feasibility is regarding 'Sulphur Powder'.

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](mailto:info@udyami.org.in)  
Contact : +91 7526000333, 444,  
555**

## PROJECT PROFILE ON SULPHUR POWDER



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### **INTRODUCTION:**

Sulphur powder is widely used in agricultural insecticides and fungicide in the dust forms or in the form wettable sulphur in spray mixture alongwith other insecticides. Sulphur powder is also used in the manufacture of fertilizers, rubber vulcanization, medicines and explosives and in the manufacture of other chemicals. Sulphur powder is applied as insecticides in crops like tobacco, rubber, groundnuts, chilies, cumin seeds etc.

Sulphur has been used since ancient times to treat certain medical conditions. It is used for its cleansing properties in the treatment of infections. Other medical uses include the elimination of parasites like ticks and fleas. The treatment of certain skin problems such as scabies and dermatitis and the treatment of bacterial infections. Sulphur drugs are available as lotions, ointment creams and soap. Oral medications called sulphonamides, are administered in tablet or syrup form.

Sulphur powder is used in industry for the manufacture of numerous products. For example it is used to make tyres. Sulphur is added during manufacturing to make the

rubber hard and to prevent it from melting during warmer temperature. Other rubber products include latex gloves, pencil erasers and automobile bumpers. Sulphur powder is used in process of manufacturing other common items such as matches, adhesives, synthetic fibres, paper products, plastics, water treatment chemicals and storage batteries.

Sulphur powder has an ignition temperature of approximately 190 degrees Celsius and there is a potential for explosion when there is a dust cloud from handling sulphur. In addition, static from the particles can result in ignition. It should be stored in well ventilated areas to reduce the risk of fire or explosion. Although ground sulfur is nontoxic when inhaled or ingested, it can cause irritation to your eyes, skin and lungs. For your safety, wear personal protective equipment, such as goggles and breathing apparatus, when working with sulfur powder.

### **MARKET POTENTIAL:**

The need of insecticides and pesticides in the country can be visualized from the size of land devoted to the production of crops. In countries where modern agriculture is being practiced, the amount of chemicals needed for the crop is enormous. To improve the productivity of agriculture more fertilizers and more pesticides and other chemicals are needed. To improve the supply of agro chemicals to the country's agriculture sector, one option would be to produce the essential chemicals here at home. And the demand for the major chemical input is sufficient to absorb the production volume of medium agro-chemicals such as sulphur powder. The raw material for Sulphur Powder is rock sulphur which is imported through MMTC. The unit can be set up in Kanpur as there is a good concentration of rubber industry, fireworks, safety matches etc. Now the rock sulphur powder is available with Indian Petro Chemical in sufficient quantity.

### **BASIS & PRESUMPTIONS:**

1. The estimates are drawn for a production capacity generally considered techno-economically viable for model type of manufacturing activity.
2. The information supplied is based on a standard type of manufacturing activity utilizing conventional techniques of production at optimum levels of performance.
3. Costs in respect of land building, machinery and equipment, raw materials and the selling prices of the finished products etc. are those generally prevailing at the time of preparation of the project profiles and may vary depending upon various factors.

4. Whereas some names of manufacturers/suppliers of machinery and equipment, raw materials etc. are indicated at the end of the profile, these are by no means exclusive or exhaustive.

5. Rate of interest for fixed and working capital @ 10% per annum.

#### **QUALITY SPECIFICATION / STANDARDS:**

Indian Standards Institution has laid-down Specification for Sulphur – IS: 8851 – 1978.

#### **IMPLEMENTATION SCHEDULE**

It will take nine months to one year to complete all the formalities before starting the commercial productions.

#### **TECHNICAL ASPECTS**

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

The process of manufacturing sulphur powder requires simple equipment mainly size reduction and material handling equipments. The size reduction equipment mainly used are jaw crusher and the Raymond mill. The other accessories are feed hopper, a bucket elevator and screening equipment. The raw sulphur is feed into the hopper of the jaw crusher where it is crushed to the feed size required by the crushing roll mill. The crushed material coming out of the jaw crusher is to be fed to the roll mill for further grinding. (In sulphur grinding, there is a danger of explosion). Two important factors basically determine explicability. These are concentration of dust in the air, and particle size of the dust. Various steps are taken to prevent dust explosion and these are included in the equipment. They are (a) reduction of the air present in grinding system and (b) use of inert gas.

#### **PRODUCTION CAPACITY (Per Annum):**

Sulphur Powder <i>Quantity</i>	600 M.T. (Per Annum)
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## POLLUTION CONTROL:

This industry does not create any kind of pollution and as such there is no need to take any preventive measure for pollution control. The sulphur powder is an explosive item, hence licence from Fire Department is required for product.

## FIANANCIAL ASPECTS:

### Machinery & Equipment

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
Pulverizer roller type equipped with cyclone separator, dust collector, attached withy blower, capacity 300 Kg/Hrof 200 mesh size.	1	7,50,000.00	7,50,000.00
Electric Motor 25 HP plus Starter, AmpMeter, Volt Meter and other Electrical Accessories.	2	40,000.00	80,000.00
Magnetic Separator for separating Iron (Manually operated)			10,000.00
Bag stitching machine	3	1,000.00	3,000.00
Weighing Balance	1	10,000.00	10,000.00
Miscellaneous Tools and Equipment/ Accessories.		50,000.00	50,000.00
Installation & Transportation charges @ 10%		50,000.00	50,000.00
Testing equipments		20,000.00	20,000.00
Total			9,73,000.00

## COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land 7500 Sqft	Rented/Owned
Building /shed 1000/400 Sq Mts	3.50
Plant & Machinery	9.73
Furniture & Fixtures	0.50
Pre-operative Expenses	0.50
Working Capital Requirement	10.38
Total	<b>24.60</b>

### MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	2.46
Term Loan	12.81
Workign Capital Finance	9.34
<b>Total</b>	<b>24.60</b>

Beneficiary's Margin Money (% of Project Cost)

<b>General</b>	10%
<b>Special</b>	5%

### COMPUTATION OF MANUFACTURING OF SULPHUR POWDER

Manufacturing Capacity per day	2.00	MT
No. of Working Hour	8	
No of Working Days per month	25	
No. of Working Day per annum	300	
Total Production per Annum	600.00	MT
Year	Capacity Utilisation	MT
IST YEAR	60%	360
IIND YEAR	65%	390
IIIRD YEAR	70%	420
IVTH YEAR	75%	450
VTH YEAR	80%	480

**COMPUTATION OF RAW MATERIAL**

Item Name		Quantity of Raw Material MT	Recovery	Unit Rate of /MT	Total Cost Per Annum (100%)
Raw Sulphur	100%	600.00	100.00%	13,000.00	78,00,000.00
Polythene Lined Jute Bags	100%	1000.00	100.00%	12.00	12,000.00
			Total		78,12,000.00
Annual Consumption cost	( In Lacs)				78.12

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	60%	46.87
IIND YEAR	65%	50.78
IIIRD YEAR	70%	54.68
IVTH YEAR	75%	58.59
VTH YEAR	80%	62.50

**COMPUTATION OF CLOSING STOCK & WORKING CAPITAL**

<b>PARTICULARS</b>	<b>IST YEAR</b>	<b>IIND YEAR</b>	<b>IIIRD YEAR</b>	<b>IVTH YEAR</b>	<b>VTH YEAR</b>
<b><u>Finished Goods</u></b>					
(30Days requirement)	3.10	3.35	3.61	3.87	4.13
<b><u>Raw Material</u></b>					
(30 Days requirement)	4.69	5.08	5.47	5.86	6.25
<b>Closing Stock</b>	<b>7.78</b>	<b>8.43</b>	<b>9.08</b>	<b>9.73</b>	<b>10.38</b>

## COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars		Total Amount
Stock in Hand		7.78
Sundry Debtors		3.68
	Total	11.46
Sundry Creditors		1.09
Working Capital Requirement		<b>10.37</b>
Margin		1.04
Working Capital Finance		<b>9.33</b>

## COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	18.00	19.50	21.00	22.50
Production	360.00	390.00	420.00	450.00	480.00
	360.00	408.00	439.50	471.00	502.50
Less : Closing Stock	18.00	19.50	21.00	22.50	24.00
Net Sale	342.00	388.50	418.50	448.50	478.50
Sale Price per MT	21,500.00	21,500.00	21,500.00	21,500.00	21,500.00
<b>Sale (in Lacs)</b>	<b>73.53</b>	<b>83.53</b>	<b>89.98</b>	<b>96.43</b>	<b>102.88</b>

## BREAK UP OF LABOUR

Particulars	No of Employees
Chemist/Supervisor	1
Skilled Worker	2
Unskilled Worker	4
Manager	1
Accountant	1
Sales	1



## PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<b><u>A) SALES</u></b>					
Gross Sale	73.53	83.53	89.98	96.43	102.88
<b>Total (A)</b>	<b>73.53</b>	<b>83.53</b>	<b>89.98</b>	<b>96.43</b>	<b>102.88</b>
<b>B) COST OF SALES</b>					
Raw Mateiral Consumed	46.87	50.78	54.68	58.59	62.50
Electricity Expenses	1.72	1.86	2.01	2.15	2.29
Repair & Maintenance	-	0.84	0.90	0.96	1.03
Labour & Wages	5.28	5.81	6.39	7.03	7.73
Depriciation	1.83	1.60	1.38	1.19	1.03
Consumables,packaging and Other Expenses	3.68	4.18	4.50	4.82	5.14
<b>Cost of Production</b>	<b>59.38</b>	<b>65.06</b>	<b>69.86</b>	<b>74.74</b>	<b>79.72</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>3.10</b>	<b>3.35</b>	<b>3.61</b>	<b>3.87</b>
<b>Less: Closing Stock /WIP</b>	<b>3.10</b>	<b>3.35</b>	<b>3.61</b>	<b>3.87</b>	<b>4.13</b>
Cost of Sales (B)	56.29	64.80	69.60	74.48	79.46
<b>C) GROSS PROFIT (A-B)</b>	<b>17.24</b>	<b>18.72</b>	<b>20.38</b>	<b>21.94</b>	<b>23.42</b>
	<b>23%</b>	<b>22%</b>	<b>23%</b>	<b>23%</b>	<b>23%</b>
D) Bank Interest (Term Loan )	0.96	1.16	0.84	0.52	0.21
Bank Interest ( C.C. Limit )	1.07	1.07	1.07	1.07	1.07
E) Salary to Staff	4.49	4.94	5.43	5.97	6.57
F) Selling & Adm Expenses Exp.	1.47	1.67	1.80	1.93	2.06
<b>TOTAL (D+E)</b>	<b>7.99</b>	<b>8.84</b>	<b>9.14</b>	<b>9.50</b>	<b>9.91</b>
H) NET PROFIT	9.25	9.88	11.23	12.45	13.51
I) Taxation	-	-	0.59	0.97	1.30
J) PROFIT (After Tax)	9.25	9.88	10.64	11.48	12.21

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