

# **PRE-FEASIBILITY REPORT FOR THE PRODUCTION OF CAPTUS (HERBAL ANALGESIC CREAM)**

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## 1. Introduction of Technology/ Process/ Product.

### **Name of technology/ Process/ Product:**

CAPTUS (Herbal Analgesic Cream)

### **Summary (Project brief local/ International Perspective)**

CAPTUS Herbal analgesic cream is a naturally based herbal preparation having capsicum extract, along with essential oils derived from the medicinal and aromatic plants, like clove and mentha piperita. Capsaicin and Capsaicinoids, the major components of capsicum have various pharmacological action of clinical interest. They are effective as an-inflammatory and anti arthritic. These compounds dilate the blood vessels and increases blood circulation of the effective localized part of the body. It is useful for the relief of pains, associated with arthritis, muscular pains, backache, strains and sprains, including all kinds of inflammatory conditions.

## 2. Main Parameter of Technology/ Process/ Product

### **Output: (Products. Byproducts with specification)**

CAPTUS. Herbal Analgesic Cream

### **Application/ Uses:**

An herbal formulation for the relief of pains associated with arthritis, Muscular pains, aches, strains and sprains including all kind of inflammatory conditions. . It is a natural muscles relaxant

**Trial Results:**

Good

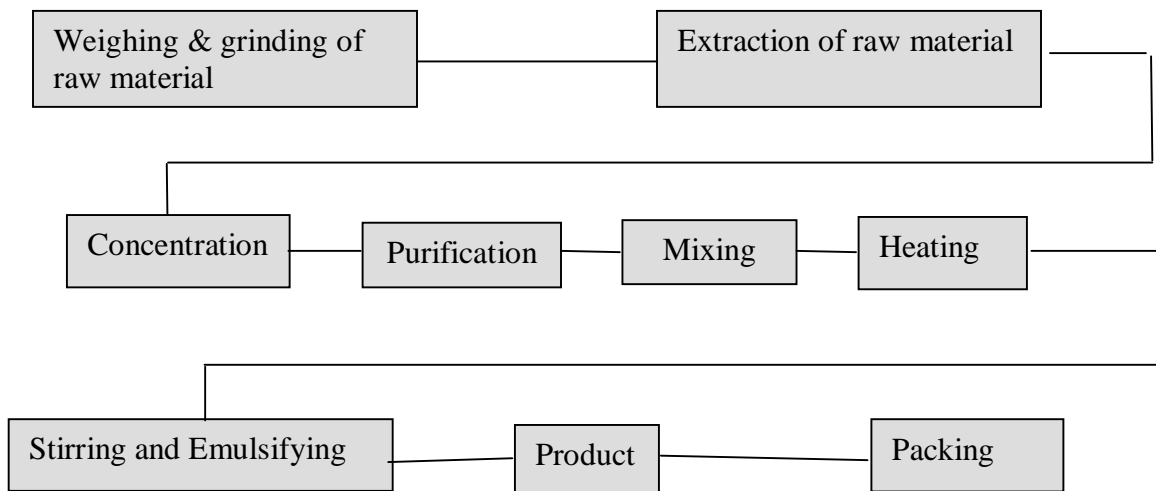
**Technical data :( Proposed capacity, Production time per batch, packing size)**

<b>Name of Product/ Activity</b>	CAPTUS Herbal Analgesic Cream
<b>Capacity:</b>	1000 Tubes/per day
<b>Production time per Batch</b>	8 hours
<b>Packing Size:</b>	25 grams/tube

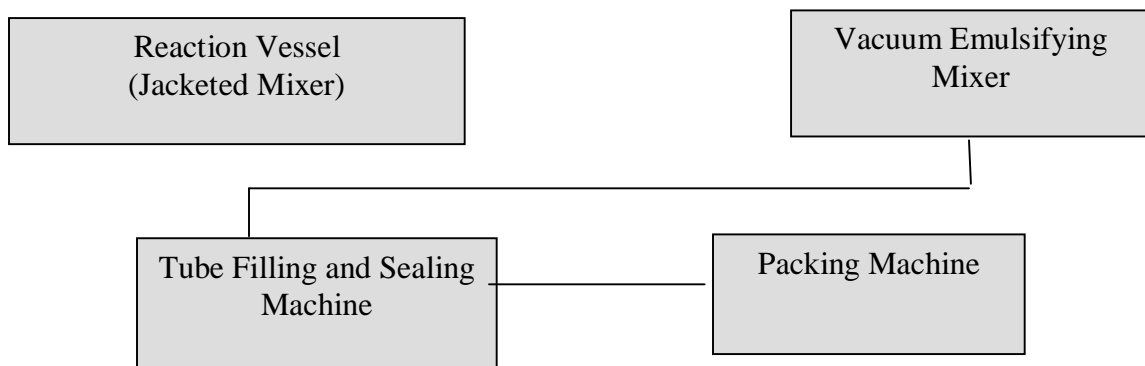
**Production process:**

- Collection, post harvest treatment, drying and grinding of raw material.
- Extraction of Capsaicinoids along with capsaicin from capsicum fruits. Extraction and purification of essential oils.
- Standardization of extracts having major active constituents.
- Blending of different essential oils and mixing of ingredients.
- Pasteurization and cooling of treated material to make the base of cream.
- Solubilization of various ingredients into one phase
- Production of stable homogenized mixture to ensure the quality of the cream.
- Monitoring of process control parameters.
- Filling of tubes by semi-automatic tube machine.

**Flow diagrams:**



**Equipment layout diagrams:**



**Machinery required with specifications:**

S.#	Item	Description	Qty	Cost (Million Rs)
01.	Pulverizing Unit	50 Kg	01	
02.	Extraction and Concentrator	50 Liter	01	2.5
03.	Homogenizer	14 Kg	01	0.15
04.	Steam Jacketed Mixer with Agitator	Capacity 300 Liter Agitator Speed 1390 rpm Motor Power 0.75 kw Power Supply 03 Phase	01	0.20
05	Vacuum Emulsifying Mixer	1. Emulsifying Tank Capacity 40 Liter Stirrer speed 86 rpm Cut off mixing speed 2800 rpm. 2. Water Pot Cap 30 Liter Stirring Speed 1400 rpm 3. Oil Pot Cap 20 Liter Stirring Speed 1400 rpm	01	0.25
06.	Metallic Tube Filling and Sealing Machine	Filling Quantity 10-75 ml Filling Cap 10- 45 Tubes/ min Motor Power 1.1 kw Tank Cap 20-30 kg	01	1.50
07.	HPLC	HPLC, LC8A Shimadzu Japan	01	3.00
08.	pH Meter	Corning pH Meter 120	01	0.05
09.	Digital Balance	Shimadzu Ax200	01	0.20
10.	Weighing scale	50 kg	01	0.02
11.	Top Load Balance	1 Kg	01	0.01
12.	De-Ionizer Water	70 Liter	01	0.003

**Standards:**

Name of Standard: Capsaicin (8-Methyl-N-Vanillyl-6-nonenamide)

$C_{18}H_{27}NO_3 = 306.41$  (Merck Germany)

**Test method:** HPLC, BP Specification of extraction

**Quality control equipment with specification:**

1. HPLC (LC. 8A Shimadzu Japan)
2. pH meter
3. Digital Balance

**Environmental impact:**

Environment friendly

**Availability of technical support:**

Available

**Available brochures/ Pamphlets:**

Available

**Status of registration/ Patent/ Trade Mark:**

Patent

**3. Estimation of Fixed Capital Investment (PKR):**

S. #	Items	Cost (Million) Rs.
1.	Land	5.00
2.	Building	10.00
3.	Cost of Furniture & Fixture	0.30
4.	Equipment/ Machineries*	9.00
5.	Others	0.20
	Total Fixed Investment (approx) Except Building & Land Price	24.50

\* Production/ Quality Control/ Packing Equipment Machineries etc.

**Input: (Raw materials with specification)**

S. No	Item	Specification
1.	Stearic Acid	BP. Grade
2.	Eucalyptus oil	BP. Grade
3.	Menthol	BP. Grade
4.	Clove oil	BP. Grade
5.	Glycerin	BP. Grade
6.	NaOH	BP. Grade
7.	Methyl Silicylate	BP. Grade
8.	T.E.A	BP. Grade

9.	Cetyl Alcohol	BP. Grade
10.	Capsaicin Extract	Standards specification
11	Methyl perabene	BP. Grade
12.	Ethanol	BP. Grade

#### Technology Transfer fee

#### Total Project Cost

Sr. #	Description	Cost (Million) Rs
1.	Working Capital Investment	5.00
2.	Fixed Capital Investment	24.50
3.	<b>Total Project Cost</b>	<b>29.50</b>

#### 4. Market ting Aspects:

**i. Total industry and annual growth**

**ii. Current demand**

**iii. Local production facilities**

**iv. Imports**

**v. Major users**

Pharmaceutical industries

**vi. Marketing strategy**

- Distribution of Brushers
- Display of samples at various chamber of commerce and industry
- Publicity through electronic and Print media

5. **Detail of Cost:**

**Direct Production Cost**

<b>S. #</b>	<b>Description</b>	<b>Expenses per month (Rs)</b>
1.	Direct Production Cost per Unit	-
2.	Raw Material	50,000/-
3.	Direct Wages Cost per Unit	-
4.	Production of overhead Cost per Unit	-
5.	Admin and Selling Expenses per months	-
6.	Utility Charges	1,00,000/month
7.	Communication Expenses	-
8.	Publicity and Advertisement per month	-
9.	Packing Material	1,00,000/-
10.	Cost per Pack / 25 gm	50.00/-

