PROJECT REPORT

Of

LUBRICANT SPRAY

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding lubricant spray Manufacturing unit.

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.]

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PROJECT AT GLANCE

1	**Name of Proprietor/Director**	XXXXXXXX	
2	**Firm Name**	XXXXXXXX	
3	**Registered Address**	XXXXXXXX	
4	**Nature of Activity**	XXXXXXXX	
5	**Category of Applicant**	XXXXXXXX	
6	**Location of Unit**	XXXXXXXX	
7	**Cost of Project**	19.71	Rs. In Lakhs
8	**Means of Finance**		
i)	**Own Contribution**	1.97	Rs. In Lakhs
ii)	**Term Loan**	13.95	Rs. In Lakhs
iii)	**Working Capital**	3.79	Rs. In Lakhs
9	**Debt Service Coverage Ratio**	3.42	
10	**Break Even Point**	18%	
11	**Power Requiremnet**	50	KW
12	**Employment**	10	Persons
13	**Major Raw Materials**	Oils & chemicals, cans, ink, valves, nozzles,caps and packing material	

14 Details of Cost of Project & Means of Finance

Cost of Project **Amount in Lacs**

Particulars	**Amount**
Land and building	Owned/Leased
Plant & Machinery	14.00
Furniture & Fixture	-
Other Misc Assets	1.50
Working Capital Requirement	4.21
Total	**19.71**

Means of Finance

Particulars	**Amount**
Own Contribution	1.97
Term Loan	13.95
Working capital Loan	3.79
Total	**19.71**

1. INTRODUCTION

Friction is the force that opposes movement on two surfaces. At the same time, wear is that change that takes place on a surface due to the removal of abrasive debris as a result of mechanical contact and a chemical-physical nature due to the heat generated by friction. A lubricant is a substance that helps to reduce friction between surfaces in mutual contact, which ultimately reduces the heat generated when the surfaces move. It may also have the function of transmitting forces, transporting foreign particles, or heating or cooling the surfaces. It is also called penetrating oil, most oil spray lubricants are made from crude oil, but some are made from vegetable oil. Their low surface tension makes them best for penetrating deep into mechanisms and into the threads of rusted bolts and nuts. After spreading lubricant goes on thick and stays where you spray, making it ideal for use on vertical surfaces and offers non-fling for moving parts such as gears, bearings, cables, chains, rollers, and more. Once applied, it withstands temperatures ranging from -100°F to 500°F. Spray Lubricant provides high-performance lubrication and corrosion protection, in a quick-drying no-mess formula. It's safe for use on metal, rubber, vinyl, wood, and much more. Lubricant sprays are used for Doors, locks, hinges, belts, windows, latches, zippers, switches,

fishing equipment, tools, chains, belts, sports equipment, lawn equipment, valves, linkages, pulleys, fans, and more. Most silicone sprays contain just around 1.5% silicone grease. The upside of silicone spray is that it repulses water and performs well in outrageous temperatures. Thin and clear, it's likewise great when tidiness counts. Notwithstanding metal, silicone is often safe to use on rubber, wood, nylon, vinyl, and plastic parts. Silicone ought not to be utilized where pressure or load-bearing is involved. Dry spray lubricants are mostly graphite. Their solvents evaporate rapidly. Dry lubricants are good for interior hinges, interior locks, drawer slides, and toolbox drawers. The primary benefits of dry lubricants are that there is no oily mess and that dust and dirt don't stick to them. Dry lubricants don't dislodge water, and they wear off decently fast under load, making it important to reapply them more oftentimes than other lubricants. Lithium grease is a combination of lithium hydroxide and oils; lithium grease is great for metal-to-metal contact, particularly when pressure or a weighty load is involved. It works incredibly in spots, for example, the table saw wrenches and the metal hinges on garage doors.

2 PRODUCT DESCRIPTION

2.1 PRODUCT USES

The user sectors of Lubricant sprays are industries for home appliances etc. Lubricant sprays are used for lubricating car door hinges, locks and levers, seatbelts and seatbelt guides, rubber seals and parts, sunroof rails, seat tracks, and other moving parts, lubricating and protecting blades, knives, dies, and cutting surfaces. Leather gear can also be softened with a spray lubricant. Many manual tools with moving parts (pruning snips) can be lubricated to increase tool life and ease of use. Lubricant spray also helps protect these tools from rust and corrosion. Spraying the sliding door tracks with silicone help keep the door moving easily and smoothly.

2.2 MANUFACTURING PROCESS

This process can be broken down into the following steps-

Raw material procurement

Production Process

Testing

Raw Material Procurement

To ensure complete quality control, all raw materials are checked strictly as per established quality standards and requirements. Individual supplier assessment and supplier rating are done depending upon the rejection levels at the incoming quality control stage. After quality control, sorting of raw material will be done. In the sorting procedure, the different types of materials will be sorted out and they will be stored in a neat storage area for further processing.

Production process

1) **Chemical formulation:** The formulation of a lubricant is made up of base oils and additives, which, when combined, determine the behavior of the mixture during product use, both in terms of performance and durability. Each lubricant has a different set of characteristics based on its formulation during manufacturing that determines its consistency, viscosity, ability to prevent friction, reduce wear and tear, protect against rust, corrosion, and oxidation, maintain mobility, and stop water and other contaminants from coming into contact with the equipment. For lithium grease lubricant; lithium hydroxide and oils are mixed. lithium grease is ideal for metal-to-metal contact, especially when pressure or a heavy load is involved. For silicon lubricant, silicon solvent and oil can be mixed. For dry lubricant, graphite can be used.

2) **Liquid filling:** The empty containers or aluminum cans travel along the production line and bespoke the formulated stored liquid and added to the can. With liquid filling machines, liquids can be easily and efficiently packed into containers without much wastage, and that is too faster. In this method penetrating oils can be filled in cans. This process is done by a liquid filling machine which can accomplish the huge liquid filling tasks in industries very easily and fast therefore can replace the work of many human beings who were to do the process in absence of these machines.

3) **Valve inserting, Sealing/crimping, and Gas filling**: The valve is then fitted to the can. The turntable will choose valves automatically. Under the airpower, the valves will be placed and pressed on the can tightly and then the crimping is done. Crimping is a conjoining of two pieces of metal fitting with sections of rigid, flexible hose and tubing by deforming one or both of them to hold each other and stick together. Then the machine will inject propellant, under pressure, through the valve. Propellent may be in the form of petroleum gas or compressed gas. Gas will be filled in cans with a gas filling machine. Once filled, the cans are sent for testing.

4) **Water bath QC:** The classic test for checking the integrity of lubricant spray is the hot water bath, where filled cans are immersed in water to verify if bubbles escape from the containers. Instead of a water bath test, some manufacturers can also use a pressure tester.

5. **Weight checking:** Once tested for leaks, in this process weight of each can is checked to ensure the correct fill. This is checked with the automatic weighing machine.

6. **Spray head/nozzle pressing:** In this step, the spray head or nozzle is pressed with a nozzle pressing machine. After the actuator/nozzle is fitted, the date and the batch code will be printed to ensure full traceability before the cap is applied.

7. **Capping:** After labeling, Capping is done and the product will be sent for packing.

Testing

- Quality Control: Leak testing, weight testing, etc. will be tested.

3 PROJECT COMPONENTS

3.1 Land & Building

The land required for this manufacturing unit will be approx. around 2000 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs.20,000 per month.

- Workshop Area- This area includes the setup and foundation space for all equipment's, work floor area, etc. Total workshop area is approx.1000 Sqft.
- Inventory Area- This area includes the storage space for all the raw materials and finished goods. Total inventory area is approx. 500 Sqft.
- Office Area – This space includes staff working region, their accommodation space. Total workshop area is approx. 300 Sqft. This may be considered above the ground floor.
- Parking Space, Electric Mounting Space, and Others. This could be approx. 200 Sqft.

Land and building requirement may vary depending on the size of project.

3.2 Plant & Machinery

- **Lubricant Spray Manufacturing Plant:** This automatic plant contains cans arranging machine, rotary liquid filling machine, valve inserting machine, rotary sealing and gas filling, automatic weight checker, water bath, nozzle presser, cap presser, inkjet printer, packing table, etc.

    1. Liquid filling, Valve supplying & sealing machine: The turntable will choose valves automatically, and the valves will be sent to producing line from the pipe productivity. Under the airpower, valves will be put and pressed on the can tightly. This machine has good capping quality; it saves labor and increases working efficiency.
    2. Automatic crimping & gas filling machine are independent table devices. It has one set of valve sealing heads and filling heads, also equipped with pressure boosters, and a gas storage tank. Sealing heads have an automatic locking device to stabilize

sealing size. This machine will not fill gas if there are no cans there in the filling heads.

3. An automatic weighing machine comes with an advanced weighing sensor, PLC controlling system, and low-voltage apparatus; the whole machine is fully explosion-proof, and with the function such as an adjustable stepless motor, human-computer dialogue interface, related fault, and waiting for feeding indicator, it could detect the weight of each finished can and reject the unqualified can automatically.
4. Automatic water bath leak tester: The machine pass the cans from the conveyor to the main body by the explosion-proof motor driving the primary shaft and screw can-divide device; the main shaft drives the hanging type sprocket to circulate cans continuously into the water tank smoothly. After soaking 3-5min, the worker could observe the soaking situation and to check whether it is leaking or not through the inspection window, if the can is leaking, could take out it through the window; those tested cans will be dried the residual moisture by blower and side wind; after entering main machine body, the can could be dropped off by the drop-can system, and then conveyed to the conveyor by outlet star wheel.
5. Automatic spray nozzle presser machine consists of nozzle head machine, spray nozzle head presser and PLC programmed control, sort and conveyor of spray head, self-compress of the spray head and aerosol cans. It is excellent in high speed, low noise, and high automation.
6. Automatic cap presser machine consists of cap arranging machine, cap presser and PLC programmed control, can finish sort and conveyor of the cap, self-compress of cap and aerosol cans, It is excellence in high speed, low noise, and high automation.
7. Automatic Clamping-type Ink-jet belt: With the explosion-proof motor, the main sub-synchronous conveyor holds the can into the spray area, and prints on the can bottom one by one. With adjustable conveying speed, it is very convenient to adjust different diameter cans, cans will travel or print without any damage or fall during printing, and they could be fixed at any position on the conveyor.

Machine	Quantity	Price
Lubricant spray making	1	10,00,000
Miscellaneous	1	4,00,000
TOTAL		**14,00,000**

Note: Total Machinery cost shall be Rs 14.00 lakhs (Approx.) excluding GST and Transportation Cost.

4 LICENSE & APPROVALS

Basic registration required in this project:

- MSME Udyam registration
- GST registration
- NOC for fire safety board and from Pollution Control Board
- Trade License
- Factory License (Optional)
- BIS certification
- Choice of a Brand Name of the product and secure the name with Trademark if required.

Projected Profitability

PROJECTED PROFITABILITY STATEMENT					(in Lacs)
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Capacity Utilisation %	**25%**	**30%**	**35%**	**40%**	**45%**
SALES					
Gross Sale					
Lubricant Spray	91.56	117.44	144.42	173.49	204.67
Total	**91.56**	**117.44**	**144.42**	**173.49**	**204.67**
COST OF SALES					
Raw Material Consumed	61.50	77.40	94.50	114.00	135.00
Electricity Expenses	2.40	2.88	3.36	3.84	4.32
Depreciation	2.33	1.98	1.68	1.43	1.21
Wages & labour	7.08	8.50	10.87	13.05	14.62
Repair & maintenance	1.83	2.47	3.18	3.47	4.09
Packaging	0.73	1.41	1.73	2.08	2.46
Cost of Production	75.87	94.63	115.32	137.87	161.70
Add: Opening Stock	-	1.77	2.21	2.69	3.22
Less: Closing Stock	1.77	2.21	2.69	3.22	3.77
Cost of Sales	74.10	94.19	114.84	137.34	161.14
GROSS PROFIT	**17.46**	**23.25**	**29.58**	**36.15**	**43.53**
	19.07%	**19.80%**	**20.48%**	**20.84%**	**21.27%**
Salary to Staff	4.14	6.42	8.34	10.43	11.99
Interest on Term Loan	1.37	1.21	0.87	0.53	0.18
Interest on working Capital	0.42	0.42	0.42	0.42	0.42
Rent	2.40	2.76	3.17	3.65	4.20
Selling & Administrative Exp.	4.12	5.28	6.50	6.94	8.19
TOTAL	**12.45**	**16.09**	**19.30**	**21.96**	**24.98**
NET PROFIT	5.02	7.17	10.28	14.19	18.55
	5.48%	**6.10%**	**7.12%**	**8.18%**	**9.06%**
Taxation	0.00	0.45	1.09	1.62	2.98
PROFIT (After Tax)	5.01	6.71	9.19	12.57	15.57

Projected Balance Sheet

PROJECTED BALANCE SHEET					**(in Lacs)**
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Liabilities					
Capital					
Opening balance		3.48	6.10	9.19	12.46
Add:- Own Capital	1.97				
Add:- Retained Profit	5.01	6.71	9.19	12.57	15.57
Less:- Drawings	3.50	4.10	6.10	9.30	12.40
Closing Balance	**3.48**	**6.10**	**9.19**	**12.46**	**15.63**
Term Loan	12.40	9.30	6.20	3.10	-
Working Capital Limit	3.79	3.79	3.79	3.79	3.79
Sundry Creditors	2.05	2.58	3.15	3.80	4.50
Provisions & Other Liability	0.40	0.48	0.58	0.80	0.96
TOTAL :	**22.12**	**22.24**	**22.90**	**23.95**	**24.87**
Assets					
Fixed Assets (Gross)	15.50	15.50	15.50	15.50	15.50
Gross Dep.	2.33	4.30	5.98	7.41	8.62
Net Fixed Assets	**13.18**	**11.20**	**9.52**	**8.09**	**6.88**
Current Assets					
Sundry Debtors	3.05	3.91	4.81	5.78	6.82
Stock in Hand	3.21	4.01	4.90	5.88	6.92
Cash and Bank	0.19	0.12	0.17	0.19	0.15
Loans & Advances /Other Current Assets	2.50	3.00	3.50	4.00	4.10
TOTAL :	**22.12**	**22.24**	**22.90**	**23.95**	**24.87**

Projected Cash Flow Statement

PROJECTED CASH FLOW STATEMENT					**(in Lacs)**
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
SOURCES OF FUND					
Own Margin	1.97				
Net Profit	5.02	7.17	10.28	14.19	18.55
Depreciation & Exp. W/off	2.33	1.98	1.68	1.43	1.21
Increase in Cash Credit	3.79	-	-	-	-
Increase In Term Loan	13.95	-	-	-	-
Increase in Creditors	2.05	0.53	0.57	0.65	0.70
Increase in Provisions & Oth labilities	0.40	0.08	0.10	0.22	0.16
	-				
TOTAL :	**29.50**	**9.75**	**12.62**	**16.49**	**20.62**
APPLICATION OF FUND					
Increase in Fixed Assets	15.50				
Increase in Stock	3.21	0.81	0.88	0.98	1.05
Increase in Debtors	3.05	0.86	0.90	0.97	1.04
Repayment of Term Loan	1.55	3.10	3.10	3.10	3.10
Loans & Advances /Other Current Assets	2.50	0.50	0.50	0.50	0.10
Drawings	3.50	4.10	6.10	9.30	12.40
Taxation	0.00	0.45	1.09	1.62	2.98
TOTAL :	**29.31**	**9.82**	**12.57**	**16.47**	**20.66**
Opening Cash & Bank Balance	-	0.19	0.12	0.17	0.19
Add : Surplus	0.19	(0.07)	0.06	0.02	(0.04)
Closing Cash & Bank Balance	**0.19**	**0.12**	**0.17**	**0.19**	**0.15**

DSCR

CALCULATION OF D.S.C.R					
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
CASH ACCRUALS	7.34	8.69	10.87	14.00	16.78
Interest on Term Loan	1.37	1.21	0.87	0.53	0.18
Total	8.71	9.90	11.74	14.52	16.97
REPAYMENT					
Instalment of Term Loan	1.55	3.10	3.10	3.10	3.10
Interest on Term Loan	1.37	1.21	0.87	0.53	0.18
Total	2.92	4.31	3.97	3.63	3.28
DEBT SERVICE COVERAGE RATIO	**2.98**	**2.30**	**2.96**	**4.01**	**5.17**
AVERAGE D.S.C.R.					**3.42**

Repayment schedule

REPAYMENT SCHEDULE OF TERM LOAN							
					Interest		11.00%
Year	**Particulars**	**Amount**	**Addition**	**Total**	**Interest**	**Repayment**	**Closing Balance**
1st	Opening Balance						
	1st month	-	13.95	13.95	-	-	13.95
	2nd month	13.95	-	13.95	0.13	-	13.95
	3rd month	13.95	-	13.95	0.13	-	13.95
	4th month	13.95	-	13.95	0.13		13.95
	5th month	13.95	-	13.95	0.13		13.95
	6th month	13.95	-	13.95	0.13		13.95
	7th month	13.95	-	13.95	0.13	0.26	13.69
	8th month	13.69	-	13.69	0.13	0.26	13.43
	9th month	13.43	-	13.43	0.12	0.26	13.18
	10th month	13.18	-	13.18	0.12	0.26	12.92
	11th month	12.92	-	12.92	0.12	0.26	12.66
	12th month	12.66	-	12.66	0.12	0.26	12.40
					1.37	**1.55**	
2nd	Opening Balance						
	1st month	12.40	-	12.40	0.11	0.26	12.14
	2nd month	12.14	-	12.14	0.11	0.26	11.88
	3rd month	11.88	-	11.88	0.11	0.26	11.63
	4th month	11.63	-	11.63	0.11	0.26	11.37
	5th month	11.37	-	11.37	0.10	0.26	11.11
	6th month	11.11	-	11.11	0.10	0.26	10.85

	7th month	10.85	-	10.85	0.10	0.26	10.59
	8th month	10.59	-	10.59	0.10	0.26	10.33
	9th month	10.33	-	10.33	0.09	0.26	10.08
	10th month	10.08	-	10.08	0.09	0.26	9.82
	11th month	9.82	-	9.82	0.09	0.26	9.56
	12th month	9.56	-	9.56	0.09	0.26	9.30
					1.21	**3.10**	
3rd	Opening Balance						
	1st month	9.30	-	9.30	0.09	0.26	9.04
	2nd month	9.04	-	9.04	0.08	0.26	8.78
	3rd month	8.78	-	8.78	0.08	0.26	8.53
	4th month	8.53	-	8.53	0.08	0.26	8.27
	5th month	8.27	-	8.27	0.08	0.26	8.01
	6th month	8.01	-	8.01	0.07	0.26	7.75
	7th month	7.75	-	7.75	0.07	0.26	7.49
	8th month	7.49	-	7.49	0.07	0.26	7.23
	9th month	7.23	-	7.23	0.07	0.26	6.98
	10th month	6.98	-	6.98	0.06	0.26	6.72
	11th month	6.72	-	6.72	0.06	0.26	6.46
	12th month	6.46	-	6.46	0.06	0.26	6.20
					0.87	**3.10**	
4th	Opening Balance						
	1st month	6.20	-	6.20	0.06	0.26	5.94
	2nd month	5.94	-	5.94	0.05	0.26	5.68
	3rd month	5.68	-	5.68	0.05	0.26	5.43

	4th month	5.43	-	5.43	0.05	0.26	5.17
	5th month	5.17	-	5.17	0.05	0.26	4.91
	6th month	4.91	-	4.91	0.04	0.26	4.65
	7th month	4.65	-	4.65	0.04	0.26	4.39
	8th month	4.39	-	4.39	0.04	0.26	4.13
	9th month	4.13	-	4.13	0.04	0.26	3.88
	10th month	3.88	-	3.88	0.04	0.26	3.62
	11th month	3.62	-	3.62	0.03	0.26	3.36
	12th month	3.36	-	3.36	0.03	0.26	3.10
					0.53	**3.10**	
5th	Opening Balance						
	1st month	3.10	-	3.10	0.03	0.26	2.84
	2nd month	2.84	-	2.84	0.03	0.26	2.58
	3rd month	2.58	-	2.58	0.02	0.26	2.33
	4th month	2.33	-	2.33	0.02	0.26	2.07
	5th month	2.07	-	2.07	0.02	0.26	1.81
	6th month	1.81	-	1.81	0.02	0.26	1.55
	7th month	1.55	-	1.55	0.01	0.26	1.29
	8th month	1.29	-	1.29	0.01	0.26	1.03
	9th month	1.03	-	1.03	0.01	0.26	0.78
	10th month	0.78	-	0.78	0.01	0.26	0.52
	11th month	0.52	-	0.52	0.00	0.26	0.26
	12th month	0.26	-	0.26	0.00	0.26	-
					0.18	**3.10**	
	DOOR TO DOOR	60	MONTHS				
	MORATORIUM PERIOD	6	MONTHS				
	REPAYMENT PERIOD	54	MONTHS				

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