

Chlorinated Paraffin Wax (CPW) Manufacturing Business.

Production of Chlorinated Paraffin Plasticizers



Introduction

Chlorinated paraffin is colorless or yellowish, viscous, dense oils, except for the chlorinated paraffins of long carbon chain length with high chlorine content (about 70%), which are solid. Chlorinated paraffin offers advantages such as flame retardancy and low-temperature strength as well as increases the flexibility of the materials.



Chlorinated paraffin wax is one of the major secondary plasticizers used in flexible PVC manufacturing. Usage of chlorinated paraffin wax increases the flame retardant property in PVC products such as PVC cables and flooring. Additionally, lower cost of chlorinated paraffin wax vis-à-vis other plasticizers lowers the overall cost of manufacturing. Chlorinated paraffin wax is used as plasticizer in paints and coatings, sealants and adhesives, and rubber products such as industrial belts and conveyor belts due to properties such as flame retardancy and inertness.

Chlorinated paraffins are used as extreme pressure additives as metal working lubricants or cutting oils. This is attributed to their compatibility with oils, viscous nature, and property of emancipating hydrochloric acid at high temperatures.

They improve the resistance to water and chemicals, which is most suitable when they are used in marine paints, as coatings for industrial flooring, vessels, and swimming pools.

Chlorinated paraffins are chlorinated n-alkanes or paraffins used as metalworking fluids and secondary plasticizers in the manufacture of PVC compounds. These are typically classified based on the grades or carbon chain lengths such as l-grade, m-grade, and h-grade. Each of these grades defines the length of carbon chain such as short chain chlorinated paraffins, medium chain chlorinated paraffins, and long chain chlorinated paraffins. These grades are further sub-divided based on chlorination content within each grade such as less than 40%, 40% to 70%, and above 70% chlorine by weight. The application requirement decides the level of chlorination and grade of chlorinated paraffin used.

Six reasons why chlorinated paraffin has become the compound of choice for many companies:

1. Flame Resistance

Chlorinated paraffin offers a low-cost, flame-retardant solution for a wide range of applications. When exposed to high temperatures, CP releases a substantial amount of HCl. In its condensed phase, HCl contributes to the formation of char. In its vapor phase, it can function as a flame poison. Additionally, the decomposed CP forms a char-like residue, which also acts as a flame retardant.

Because of its flame-retardant properties, chlorinated paraffin is ideal for use in rubber, plastics, sealants, industrial coatings, adhesives, fabric or any application where fire resistance is essential.

2. Low-temperature Flexibility

Chlorinated paraffin ensures greater flexibility at lower temperatures than conventional plasticizers. As a result, it is often added to products that require a high flexibility in colder weather, such as some types of flooring, wire and cable insulation, and garden hose. In the production of plastics, CP is added to increase the elasticity of materials like PVC.

3. Stain Resistance

Another reason why chlorinated paraffin may be selected is its improved stain resistance. This is an important consideration in applications where a certain aesthetic is desired, including flooring, wall coverings and upholstery. In comparison, sulfurized additives can stain metals and cause rancidity.

4. Resistance to Aqueous Detergent Extraction

Many manufacturers use water-based detergents/additives to clean their metal parts. While this cleaning process eliminates contaminants like grease and oil, it can also remove plasticizers that are required for an effective formulation. Chlorinated paraffin, however, releases hydrochloric acid at elevated temperatures, which then bonds with the metal surface and forms a thin yet solid film of lubricant.



5. Chemical Resistance

Chlorinated paraffin offers improved resistance to both water and chemicals. For this reason, it is often added to paints, sealants and coatings. It is especially effective in paints used for traffic markings and marine applications, such as coatings for industrial flooring, vessels, swimming pools, etc.

6. Plastisol Viscosity Stability

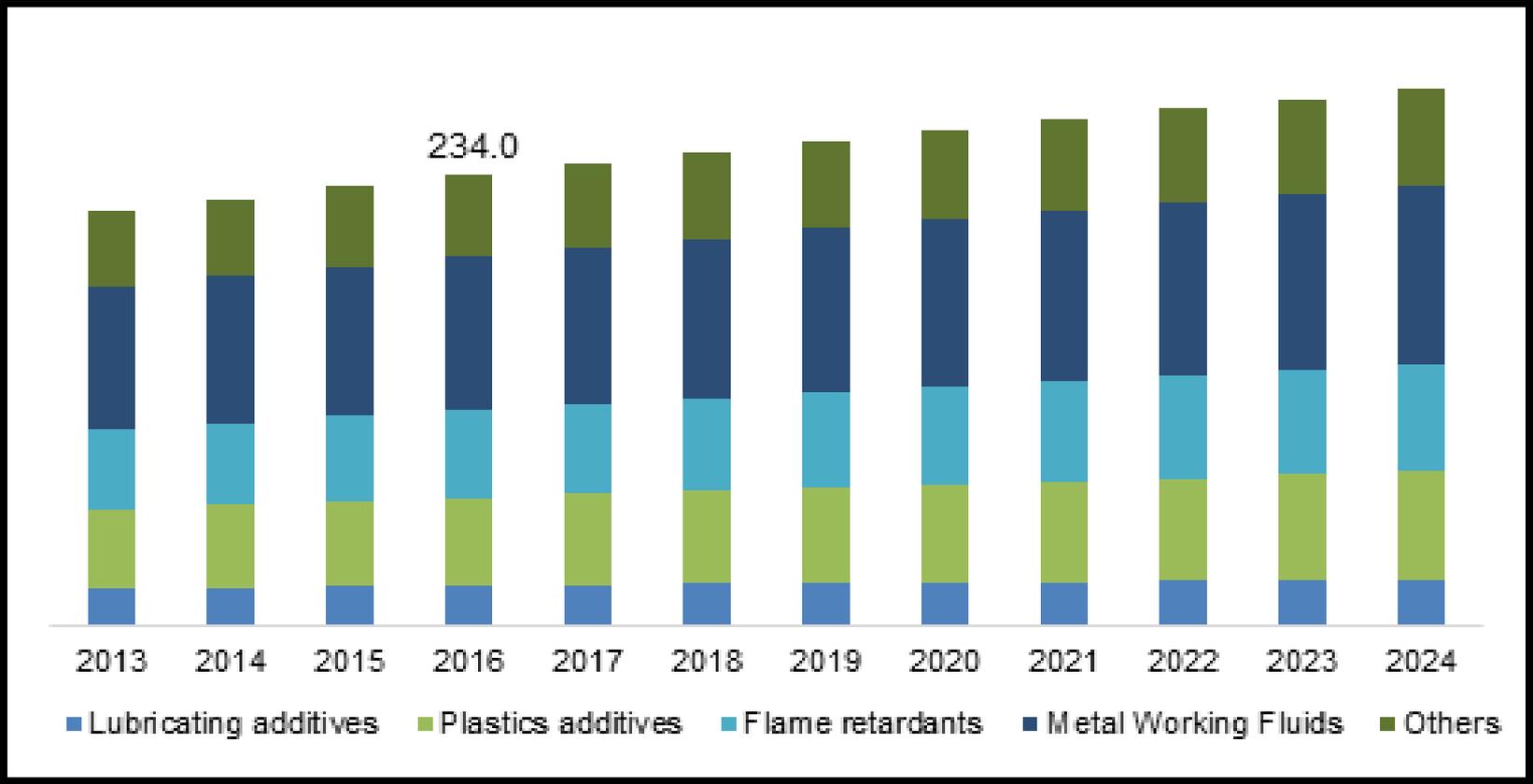
Chlorinated paraffin serves as a viscosity regulator for plastisols. This is especially critical in the manufacturing of PVC plastisol, which must maintain a stable viscosity for an extended period of time (during dip and rotational molding). For improved stability, we recommend using CPs with a chlorine content of 30%-40%.

Market Outlook

The global chlorinated paraffin wax market was valued at US\$ 1,647.0 Mn in 2018 and is anticipated to expand at a CAGR of 3.3% from 2019 to 2027. Rise in usage of chlorinated paraffin wax as flame retardant is expected to drive the market in the near future.

Factors that drive the growth of the global chlorinated paraffin market are rise in PVC and metal working industry coupled with aerospace & industrial sector. In addition, growth in automotive sector is also expected to fuel the demand for chlorinated paraffin in the near future. However, stringent regulations pertaining to use of short-chain chlorinated paraffin in many regions and availability of alternatives is expected to hamper the growth of this market in near future.

U.S. Chlorinated Paraffin Market Size, by Application, 2013 – 2024 (USD Million)



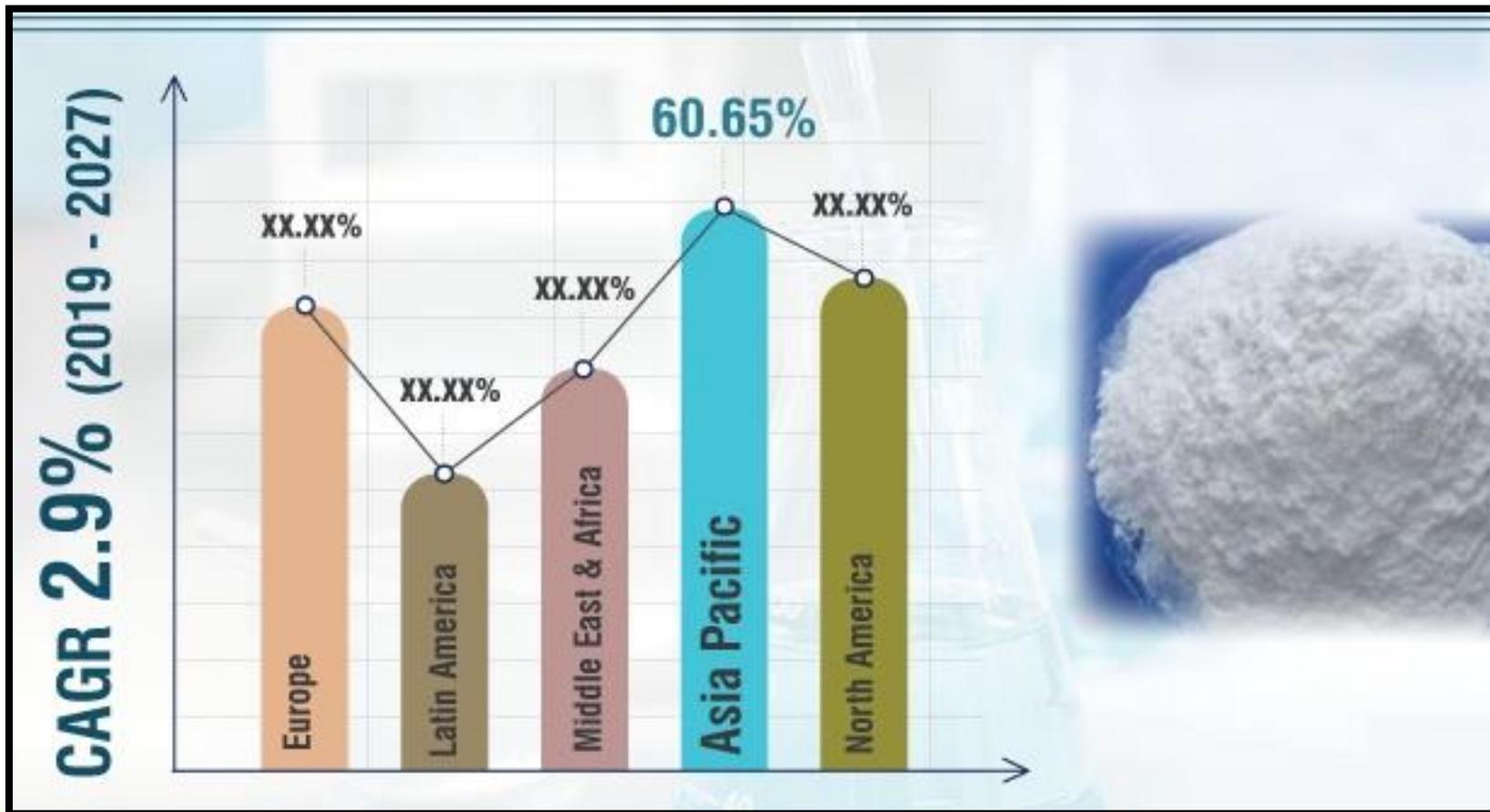
Demand for chlorinated paraffins has increased in various applications owing to the low cost and broad range of properties of these paraffins. Growth in plastic and metalworking industries is likely to drive the demand for chlorinated paraffins during the forecast period. Availability of various application-specific substitutes and potential prohibition in developed regions owing to environmental concerns are projected to hamper market growth in the next eight years. However, expansion in the lubricants market in Asia Pacific is anticipated to offer growth opportunities to the chlorinated paraffins market during the forecast period.



Construction sector expansion is likely to augment the market growth in coming years owing to rising population coupled with increasing housing requirements of the people in the developing regions. This is due to extensive product usage in PVC in order to manufacture the sheets, films, cables, wires, pipes and other related products. Increasing demand for the PVC products in construction, insulation, transmission and other industries is fueling the chlorinated paraffin market growth due to outstanding technical features.

Based on end-user, the chlorinated paraffin market is fragmented into paints & coatings, rubber, manufacturing, textile, leather and other industries. Among these, rubber and manufacturing industries will register a combined share of over 50% in chlorinated paraffin market in 2024. This is attributed due to the wide acceptance of the product as a softening agent, lubricative additive, fire retardants and water repellent fabric treatment agent.

Global Chlorinated Paraffin Wax Market Share (%), By Region (2018)



Based on region, the global chlorinated paraffin wax market has been split into North America, Europe, Asia Pacific, Latin America, and Middle East & Africa. Currently, countries in Asia Pacific such as China, India, Indonesia, Japan, and South Korea are considered to be the center of gravity for the global fabrication and metalworking industry. Increase in trend of domestic manufacturing of chlorinated paraffin wax is fueled by the growth in end-user industries. Chlorinated paraffin wax is primarily used in industrial cutting fluids or metalworking lubricants as high-pressure additives. It possesses the property of providing the necessary lubrication at high temperature and pressure, thus making it suitable for large metal cutting operations.

Increase in demand for metalworking fluids in automotive, aerospace, and other manufacturing sectors is projected to boost the metalworking fluids segment, as these fluids are good flame retardants and coolants. Chlorinated paraffin wax is primarily used as a key ingredient in the formulation of working or metal cutting fluids. This is likely to boost the penetration of chlorinated paraffin wax during the forecast period.



Global Chlorinated Paraffins Market: Market Participants

- **NOVYN**
- **Caffaro Industrie S.p.A.**
- **Ajinomoto Fine-Techno**
- **JSC Kaustik**
- **Altair Chimica SpA**
- **INEOS Chlor**
- **Quimica del Cinca, S.A.**
- **Handy Chemical Corporation Ltd.**
- **LEUNA-Tenside GmbH**
- **Dover Chemical Corporation**
- **Aditya Birla Chemicals.**
- **Flow Tech Group of Industries**
- **Makwell Group**

Major Queries/Questions Answered in the Report?

- 1. What is Chlorinated Paraffin Wax Manufacturing industry ?**
- 2. How has the Chlorinated Paraffin Wax Manufacturing industry performed so far and how will it perform in the coming years ?**
- 3. What is the Project Feasibility of Chlorinated Paraffin Wax Manufacturing Plant ?**
- 4. What are the requirements of Working Capital for setting up Chlorinated Paraffin Wax Manufacturing plant ?**

- 5. What is the structure of the Chlorinated Paraffin Wax Manufacturing Business and who are the key/major players ?**
- 6. What is the total project cost for setting up Chlorinated Paraffin Wax Manufacturing Business?**
- 7. What are the operating costs for setting up Chlorinated Paraffin Wax Manufacturing plant ?**
- 8. What are the machinery and equipment requirements for setting up Chlorinated Paraffin Wax Manufacturing plant ?**

9. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up Chlorinated Paraffin Wax Manufacturing plant ?

10. What are the requirements of raw material for setting up Chlorinated Paraffin Wax Manufacturing plant ?

11. Who are the Suppliers and Manufacturers of Raw materials for setting up Chlorinated Paraffin Wax Manufacturing Business?

12. What is the Manufacturing Process of Chlorinated Paraffin Wax?

- 13. What is the total size of land required for setting up Chlorinated Paraffin Wax Manufacturing plant ?**
- 14. What will be the income and expenditures for Chlorinated Paraffin Wax Manufacturing Business?**
- 15. What are the Projected Balance Sheets of Chlorinated Paraffin Wax Manufacturing plant ?**
- 16. What are the requirement of utilities and overheads for setting up Chlorinated Paraffin Wax Manufacturing plant?**
- 17. What is the Built up Area Requirement and cost for setting up Chlorinated Paraffin Wax Manufacturing Business?**

18. What are the Personnel (Manpower) Requirements for setting up Chlorinated Paraffin Wax Manufacturing Business?

19. What are Statistics of Import & Export for Chlorinated Paraffin Wax?

20. What is the time required to break-even of Chlorinated Paraffin Wax Manufacturing Business?

21. What is the Break-Even Analysis of Chlorinated Paraffin Wax Manufacturing plant?

22. What are the Project financials of Chlorinated Paraffin Wax Manufacturing Business?

- 23. What are the Profitability Ratios of Chlorinated Paraffin Wax Manufacturing Project?**
- 24. What is the Sensitivity Analysis-Price/Volume of Chlorinated Paraffin Wax Manufacturing plant?**
- 25. What are the Projected Pay-Back Period and IRR of Chlorinated Paraffin Wax Manufacturing plant?**
- 26. What is the Process Flow Sheet Diagram of Chlorinated Paraffin Wax Manufacturing project?**

27. What are the Market Opportunities for setting up Chlorinated Paraffin Wax Manufacturing plant?

28. What is the Market Study and Assessment for setting up Chlorinated Paraffin Wax Manufacturing Business?

29. What is the Plant Layout for setting up Chlorinated Paraffin Wax Manufacturing Business?

Table of Contents of the Project Report

Our Detailed Project Report contains

- **Introduction**
- **Properties**
- **Uses & Applications**
- **List of Plant & Machineries**
- **Miscellaneous Items and Accessories**
- **Instruments, Laboratory Equipments and Accessories**
- **Electrification, Electric Load and Water**
- **Maintenance, Suppliers/Manufacturers of Plant and Machineries**

- **Process of Manufacture**
- **Flow Sheet Diagram**
- **List of Raw Materials**
- **Availability of Raw Materials**
- **Requirement of Staff & Labour**
- **Skilled & Unskilled Labour**
- **Requirement of Land Area**
- **Built up Area**
- **Plant Layout**

Project Financials

• Project at a Glance	Annexure
• Assumptions for Profitability workings	1
• Plant Economics.....	2
• Production Schedule.....	3
• Land & Building.....	4
Factory Land & Building	
Site Development Expenses	

- **Plant & Machinery.....5**
 - Indigenous Machineries**
 - Other Machineries (Miscellaneous, Laboratory etc.)**

- **Other Fixed Assets.....6**
 - Furniture & Fixtures**
 - Pre-operative and Preliminary Expenses**
 - Technical Knowhow**
 - Provision of Contingencies**

- **Working Capital Requirement Per Month.....7**
 - Raw Material**
 - Packing Material**
 - Lab & ETP Chemical Cost**
 - Consumable Store**

- **Overheads Required Per Month and Per Annum.....8**
Utilities & Overheads (Power, Water and Fuel Expenses etc.)
Royalty and Other Charges
Selling and Distribution Expenses

- **Salary and Wages9**

- **Turnover Per Annum10**

- **Share Capital.....11**
Equity Capital
Preference Share Capital

- **Annexure 1 :: Cost of Project and Means of Finance**
- **Annexure 2 :: Profitability and Net Cash Accruals**
 - **Revenue/Income/Realisation**
 - **Expenses/Cost of Products/Services/Items**
 - **Gross Profit**
 - **Financial Charges**
 - **Total Cost of Sales**
 - **Net Profit After Taxes**
 - **Net Cash Accruals**

- **Annexure 3 :: Assessment of Working Capital requirements**

- **Current Assets**
- **Gross Working Capital**
- **Current Liabilities**
- **Net Working Capital**
- **Working Note for Calculation of Work-in-process**

- **Annexure 4 :: Sources and Disposition of Funds**

- **Annexure 5 :: Projected Balance Sheets**

- **ROI (Average of Fixed Assets)**
- **RONW (Average of Share Capital)**
- **ROI (Average of Total Assets)**

- **Annexure 6 :: Profitability Ratios**

- **D.S.C.R**
- **Earnings Per Share (EPS)**
- **Debt Equity Ratio**

• **Annexure 7 :: Break-Even Analysis**

- **Variable Cost & Expenses**
- **Semi-Variable/Semi-Fixed Expenses**
- **Profit Volume Ratio (PVR)**
- **Fixed Expenses / Cost**
- **B.E.P**

- **Annexure 8 to 11 :: Sensitivity Analysis-Price/Volume**

- **Resultant N.P.B.T**
- **Resultant D.S.C.R**
- **Resultant PV Ratio**
- **Resultant DER**
- **Resultant ROI**
- **Resultant BEP**

- **Annexure 12 :: Shareholding Pattern and Stake Status**

- **Equity Capital**

- **Preference Share Capital**

- **Annexure 13 :: Quantitative Details-Output/Sales/Stocks**

- **Determined Capacity P.A of Products/Services**

- **Achievable Efficiency/Yield % of Products/Services/Items**

- **Net Usable Load/Capacity of Products/Services/Items**

- **Expected Sales/ Revenue/ Income of Products/ Services/ Items**

- **Annexure 14** :: **Product wise Domestic Sales Realisation**
- **Annexure 15** :: **Total Raw Material Cost**
- **Annexure 16** :: **Raw Material Cost per unit**
- **Annexure 17** :: **Total Lab & ETP Chemical Cost**
- **Annexure 18** :: **Consumables, Store etc.**
- **Annexure 19** :: **Packing Material Cost**
- **Annexure 20** :: **Packing Material Cost Per Unit**

- **Annexure 21** :: **Employees Expenses**
- **Annexure 22** :: **Fuel Expenses**
- **Annexure 23** :: **Power/Electricity Expenses**
- **Annexure 24** :: **Royalty & Other Charges**
- **Annexure 25** :: **Repairs & Maintenance Expenses**
- **Annexure 26** :: **Other Manufacturing Expenses**
- **Annexure 27** :: **Administration Expenses**
- **Annexure 28** :: **Selling Expenses**

- **Annexure 29 :: Depreciation Charges – as per Books (Total)**
- **Annexure 30 :: Depreciation Charges – as per Books (P & M)**
- **Annexure 31 :: Depreciation Charges - as per IT Act WDV (Total)**
- **Annexure 32 :: Depreciation Charges - as per IT Act WDV (P & M)**
- **Annexure 33 :: Interest and Repayment - Term Loans**
- **Annexure 34 :: Tax on Profits**
- **Annexure 35 :: Projected Pay-Back Period and IRR**

Tags

#Chlorinated_Paraffin, #Chlorinated_Paraffin_Wax, #Chlorinated_Paraffin_Wax_(CPW), Chlorinated Paraffin Wax Manufacture, Chlorinated Paraffin Wax Manufacturing Process, #Chlorinated_Paraffin_Wax_Manufacturing_Plant, Production of Chlorinated Paraffin, Project for Manufacturing of Chlorinated Paraffin, #Manufacturing_of_Chlorinated_Paraffin_Wax, Chlorinated Paraffin Wax Manufacture in India, #Chlorinated_Paraffin_Wax_Production, Chlorinated Paraffin Wax Plant, Paraffin Industry, #Chlorinated_Paraffin_Production, Chlorinated Paraffin Wax Manufacturing, Project Report on Chlorinated Paraffin Wax, Manufacture of Chlorinated Paraffin Wax, Chlorinated Paraffin Industry, #Detailed_Project_Report_on_Chlorinated_Paraffin_Wax_Manufacturing, Project Report on Chlorinated Paraffin Wax Manufacturing Industry, Pre-Investment Feasibility Study on Chlorinated Paraffin Wax Manufacturing Business, Techno-Economic feasibility study on Chlorinated Paraffin Wax Production, #Feasibility_report_on_Chlorinated_Paraffin_Wax_Manufacturing_Business, Free Project Profile on Chlorinated Paraffin Production, #Project_profile_on_Chlorinated_Paraffin_Wax_Manufacturing_Project, Download free project profile on Chlorinated Paraffin Wax Manufacturing Business, Chlorinated Paraffin Wax for Commercial Use, Chlorinated Paraffin Wax Project Report, Profitable Business Ideas in Wax Manufacturing, Paraffin Wax Manufacture, How to Start Chlorinated Paraffin Wax Industry, CPW, CPW (Chlorinated Paraffin Wax)

Niir Project Consultancy Services (NPCS)

can provide Detailed Project Report on

Chlorinated Paraffin Wax (CPW)

Manufacturing Business.

Production of Chlorinated

Paraffin Plasticizers

See more

<https://bit.ly/2xgMDT2>

<https://bit.ly/2Yd5dHB>

<https://bit.ly/2X64d6F>



Contact us

NIIR PROJECT CONSULTANCY SERVICES

106-E, Kamla Nagar, Opp. Spark Mall,
New Delhi-110007, India.

Email: npcs.ei@gmail.com , info@entrepreneurindia.co

Tel: +91-11-23843955, 23845654, 23845886, 8800733955

Mobile: +91-9811043595

Fax: +91-11-23845886

Website : www.entrepreneurindia.co , www.niir.org

Take a look at NIIR PROJECT CONSULTANCY SERVICES on #StreetView

<https://goo.gl/VstWkd>



Follow us



➤ <https://www.linkedin.com/company/niir-project-consultancy-services>



➤ <https://www.facebook.com/NIIR.ORG>



➤ <https://www.youtube.com/user/NIIRproject>



➤ <https://plus.google.com/+EntrepreneurIndiaNewDelhi>



➤ https://twitter.com/npcs_in



➤ <https://www.pinterest.com/npcsindia/>





**Thank
You**

For more information, visit us at:

www.niir.org

www.entrepreneurindia.co



www.entrepreneurindia.co