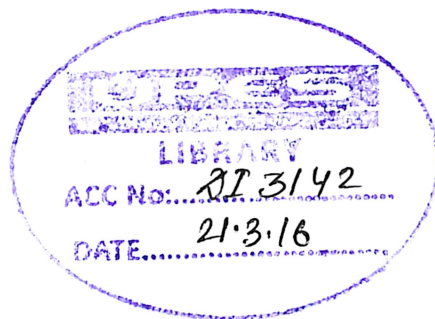


**MARKET ASSESMENT OF FORMALDEHYDE, MELAMINE
POWDER
AND UREA
FORMALDEHYDE IN DIFFERENT INDUSTRIES IN GUJARAT**



SUBMIT TO:

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Date : 21/07/2013

To Whomsoever It May Concern

This is to certify that **Mr. ADNAN SHAKIR** student of **UPES** has successfully completed his summer internship on “**SALES AND MARKETING**” with our organization .The period of the project was from **20thMAY 2013 to 20th JULY 2013**. We found him sincere, hardworking and his project satisfactory. We wish him all the very best for his professional career.

Regards,



Kamlesh Narayan

(Manager- HR & admin)

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Table of Contents

| | |
|--|----|
| Statement of proposal | 6 |
| : Problem Statement: | 6 |
| CHAPTER 1: INTRODUCTION | 6 |
| FORMALDEHYDE: | 7 |
| PHYSICAL PROPERTIES: | 7 |
| SOURCES OF FORMALDEHYDE | 7 |
| APPLICATIONS: | 8 |
| INDUSTRIAL APPLICATIONS: | 8 |
| UREA FORMALDEHYDE | 9 |
| PROPERTIES | 9 |
| OVERVIEW OF CONSUMING SECTORS: Urea Formaldehyde | 9 |
| MELAMINE POWDER | 10 |
| APPLICATIONS | 10 |
| METHANOL | 11 |
| CHAPTER 2: ECONOMIC ASPECTS IN GUJARAT | 12 |
| METHANOL | 12 |
| Chapter 3 Market Scenario of Industry | 13 |
| MARKET SCENARIO OF LAMINATE INDUSTRY | 13 |
| MARKET SCENARIO OF PLYWOOD INDUSTRIES | 14 |
| CHAPTER 4: | 15 |
| BUSINESS CHAIN OF FORMALDEHYDE | 15 |
| CHAPTER 5: | 17 |
| Global Production of Formaldehyde: | 17 |
| Formaldehyde: Prices fall as slackening demand | 17 |
| Threat to industry: | 19 |
| Demand for Methanol in the Production of Formaldehyde: | 19 |
| Outlook: | 21 |

| | |
|---|----|
| CHAPTER 7: Worldwide Supply and Production of Formaldehyde | 23 |
| CHAPTER 8: MAJOR PARAMETERS FOR FORMALDEHYDE | 24 |
| CHAPTER 9: Research Methodology:..... | 27 |
| SWOT ANALYSIS | 27 |
| PORTERS 5 (FIVE) FORCES MODEL | 28 |
| CHAPTER 10: MONTHLY AND YEARLY CONSUMPTION | 30 |
| Monthly and Yearly Consumption of Formaldehyde in RAJKOT | 30 |
| DISCUSSION WITH FORMALDEHYDE IN RAJKOT | 32 |
| Monthly and Yearly Consumption of Formaldehyde in MORBI..... | 34 |
| Discussion and Review for Formaldehyde in Morbi..... | 35 |
| Monthly and Yearly Potential of Formaldehyde in Gandhidham | 36 |
| Monthly and Yearly Consumption of Melamine powder in Rajkot | 40 |
| Discussion and Reviews of Melamine Powder..... | 41 |
| Monthly and Yearly Potential of Melamine Powder in Morbi | 43 |
| CHAPTER 11: | 44 |
| Safety Precautions:..... | 44 |
| What employers should know? | 44 |
| Harmful Effects on Workers:..... | 45 |
| Routes of Exposure: | 45 |
| How employers can protect workers?..... | 45 |
| LIST OF CUSTOMERS NEW AND OLD FOR FROMADHYDE, MELAMINE POWDER, UREA / PHENOL FORMALDEHYDE AND METHANOL | 46 |
| CHAPTER 13: FINDING AND CONCLUSION..... | 63 |
| Chapter 14 BIBLIOGRAPHY | 66 |

STATEMENT OF PROPOSAL:

Problem Statement:

What is the current market potential of Formaldehyde, Urea Formaldehyde Resin and Melamine Powder in the manufacturing sector in Gujarat.

CHAPTER 1: INTRODUCTION

RAI CORPORATION is one of the fastest growing business conglomerates with a strong presence in the chemical sector. From a small chemical manufacturing company in 2005, this corporation has grown to a multi business conglomerate within a short span of time. With business interest ranging from chemical manufacturing, power trading, salt manufacturing, green fuels and many more, Rai Corporation today has become synonymous to success. With presence across India and in 4 countries across the globe, Rai Corporation is headed to be a Global Cooperation.

Our **VISION** is “**To be dependable petroleum and petrochemical manufacturer and supplier worldwide, fostering customer growth by adding value and innovation consistently**”.

Our **MISSION** is “**To invariably enhance capabilities of our customer offering quality range, values, and time bound deliveries**”.

Rai Corporation has spread its business across the nation in more than 11 cities like Kandla, Ahmedabad, Mumbai, Delhi, Chennai, Hyderabad, Kolkata, Lucknow, Udaipur, Indore, and Bangalore. And its global presence includes 4 countries, namely India, U.A.E. (in Dubai), U.K. (in London), and Kazakhstan (in Almaty).

The corporation has expanded its business to diversified sector, under the following names:

- **Kandla Energy and Chemicals Ltd. (manufacturing of hydrocarbon solvents)** – the ‘MOTHER’ company
- **Kandla Formalin Ltd. (UF/PF resin, Hexamine, Methylal)**
- **Kutch Enterprise (P) Ltd. (Bentonite mining)**
- **Kandla Enterprise (P) Ltd. (Petrochemical Trading)**
- **Kashi Farm Fresh (P) Ltd. (Frozen foods)**
- **Yash Salt & Allied Work (Industrial Salt manufacturing)**
- **Shreenathji Rasayan (P) Ltd. (Formaldehyde)**
- **Galaxy Impo-Expo (P) Ltd. (Green fuel)**
- **Meet Petro Products (P) Ltd. (Hydrocarbon solvents)**

FORMALDEHYDE:

Formaldehyde is one of the most versatile chemicals with the formula CH_2O or HCHO it is a basic building block to many important industries. Formaldehyde is used in the manufacturing of resins; as an intermediate for synthesis of other chemicals and also used directly without further processing

Formaldehyde is an important chemicals with its wide spread used in construction, wood processing, furniture, textiles, carpeting, and in the chemical industry. It is classified as human carcinogen that generally causes nasopharyngeal cancer and probably leukemia. (IARC, 2006)

A gas at room temperature, formaldehyde is colorless and has a characteristic pungent, irritating odor. It is an important precursor to many other materials and chemical compounds. Commercial solutions of formaldehyde in water, commonly called formal, were formerly used as disinfectants and for preservation of biological specimens.

PHYSICAL PROPERTIES:

| | |
|------------------------|------------------------------------|
| Appearance | : Clear liquid with pungent odour. |
| Boiling Point | : ~ 96 °C @ 760 mm Hg |
| Vapor Pressure | : None Available. |
| Specific Gravity | : 1.1 |
| Flash Point | : 64 - 85 °C |
| Lower Explosive Limits | : 7% |
| Upper Explosive Limits | : 73% |
| Solubility in Water | : Miscible |
| pH | : 2.8-4.0 |

SOURCES OF FORMALDEHYDE

Formaldehyde has been produced commercially since 1889 by the catalytic oxidation of methanol. Various specific methods were used in the past, but only two are widely used currently: the silver catalyst process and the metal oxide catalyst process.

Formaldehyde is currently produced in two ways. The first technology is a catalytic reaction (silver as a catalyst) – a partial oxidation and dehydrogenation of methanol. The greater part of European formaldehyde is produced by means of this way. The second technology consists of the catalytic reaction (materials based on molybdenum or ferric oxide as catalysts) of the full oxidation of methanol interacted with oxygen.

Each technology has its positive sides. An advantage of the first way is an opportunity to choose a place for production. The second technology makes it possible to produce formaldehyde of much higher concentration.

APPLICATIONS:

The various applications of formaldehyde as resins, as an intermediate and as itself are described below :

AS RESINS : The largest amount of formaldehyde finds application in the manufacture of Resins, viz., Phenol Formaldehyde (PF), Urea Formaldehyde (UF) and Melamine Formaldehyde (MF) - which finds applications in laminates, plywood, MDF, particle board and hard boards. These resins are also used for produce curable molding materials, as raw materials for surface coatings, and as binders for foundry sand.

AS AN INTERMEDIATE: Formaldehyde is also used for synthesizing chemicals like Pentaerythritol, Hexamine, Paraformaldehyde, 1,4-Butanediol, Polyacetal Resins, Methylene Diisocyanate (MDI), Trimethylolpropane, Neopentylglycol.

DIRECT USE : Formaldehyde is also used directly for mirror finishing and electroplating, preservation and disinfection, film development in photography industry.

INDUSTRIAL APPLICATIONS:

Formaldehyde is a common chemical to more complex compounds and materials. In approximate order of decreasing consumption, products generated from formaldehyde include urea-formaldehyde resin, melamine resin, and phenol-formaldehyde resin. Formaldehyde-based materials are key to the manufacture of automobiles, and used to make components for the transmission, electrical system, engine block, door panels, axles and brake shoes. In 2005, annual world production of formaldehyde was estimated to be 8.7 million tons.

When treated with phenol, urea, or melamine, formaldehyde produces, respectively, hard thermoset phenol formaldehyde resin, urea formaldehyde resin, and melamine resin. These polymers are common permanent adhesives used in plywood and carpeting. Production of formaldehyde resins accounts for more than half of formaldehyde consumption.

An aqueous solution of formaldehyde can be useful as a disinfectant as it kills most bacteria and fungi (including their spores). Formaldehyde solutions are applied topically in medicine to dry the skin, such as in the treatment of warts. In photography, formaldehyde is used in low concentrations for process C-41 (color negative film) stabilizer in the final wash step, as well as in the process E-6 pre-bleach step, to obviate the need for it in the final wash.

UREA FORMALDEHYDE

Urea-formaldehyde resin, any of a class of synthetic resins obtained by chemical combination of urea (a solid crystal obtained from ammonia) and formaldehyde (a highly reactive gas obtained from methane). Urea-formaldehyde resins are used mostly as adhesives for the bonding of plywood, particleboard, and other structured wood products. The chemical composition of urea and formaldehyde and the reaction by which they are polymerized into networks of permanently interlinked molecules are briefly described in the article aldehyde condensation polymer.

PROPERTIES

Urea-formaldehyde resin's attributes include high tensile strength, flexural modulus, and heat distortion temperature, low water absorption, mold shrinkage, high surface hardness, elongation at break, and volume resistance.

Index of Refraction = 1.54

OVERVIEW OF CONSUMING SECTORS: Urea Formaldehyde

Urea-formaldehyde polymers are also used in textile fiber to improve wrinkle and shrink resistance, and they are blended with alkyd paints in order to improve the surface hardness of the coating.

Urea-Formaldehyde is everywhere and used in many manufacturing processes due to its useful properties. Examples include decorative laminates, textiles, paper, foundry sand molds, wrinkle resistant fabrics, cotton blends, rayon, corduroy, etc. It is also used to glue wood together. Urea formaldehyde was commonly used when producing electrical appliances casing (e.g. desk lamps).

The product is widely chosen as an adhesive resin due to its high reactivity, good performance, and low price. Urea-formaldehyde resin is a chemical combination of urea and formaldehyde. Amino resins are considered a class of thermosetting resins of which urea-formaldehyde resins make up 80% produced globally. Examples of amino resins include automobile tires in order to improve the bonding of rubber to tire cord, paper for improving tear strength, molding electrical devices, molding jar caps, etc.

MELAMINE POWDER

Melamine powder is tasteless, odourless and non-toxic. Melamine formaldehyde resins used for laminates offer good hardness, resistance to scratch, stain, water and heat. Laminates used in some industrial electrical applications possess high mechanical strength, good heat resistance and good electrical insulating properties.

Asbestos filled Melamine resins possess very high dielectric strength and high heat resistance. Besides the best dimensional stability, Melamine Formaldehyde molding powder gives clear and bright colors, is easily moldable and offers resistance to surface scratching.

APPLICATIONS

1. LAMINATES

For table tops, kitchen shelves, platforms, wall cladding, bus bodies, interior of railway coaches, counters, deckings, instrument panels.

2. Consumer Moulded Goods

Bowls, trays, mixer base, crockery, cutlery items, launder able buttons, lamp shades

3. Industrial Moulded Goods

Circuit breakers, television tube support, automotive ignition system, washing machines, agitators , soda fountain parts, switch gears.

4. Adhesives

Melamine adhesives from Melamine resins are extra strong, extra tough, highly water resistant and colourless (veneered doors)

5. Leather chemicals

MF resins act as pre-tanning agents.

6. Melamine resins for Textile Auxiliaries

For providing anti-crease treatment to cotton and other fabrics

Melamine is described as being "Harmful if swallowed, inhaled or absorbed through the skin. Chronic exposure may cause cancer or reproductive damage. Eye, skin and respiratory irritant.

METHANOL

Methanol is a basic, one-carbon molecule that enables an almost countless number of chemical processes. Made mostly from natural gas, it is at the trailhead of hundreds of value-chain pathways that lead through the realms of petrochemicals, alkalis, thiols, and life sciences chemicals, eventually leading to critical applications that modern society demands accordingly, methanol is a strategic chemical for a vast array of petrochemical industry participants.

MANUFACTURING OF METHANOL

Methanol is made from synthesis gas (syngas), which itself is the product of hydrocarbon-rich material that has been heated in the presence of metal catalysts. Almost exclusively, that hydrocarbon is natural gas (methane). However in China, a large amount of production capacity uses coal as the source of hydrocarbons. Therefore, a discussion of natural gas based and coal based methanol production processes is merited.

Natural Gas Based Methanol Production

Methanol production from syngas takes place in three major steps: reforming, the catalyzed production of syngas from saturated, de-sulphurized natural gas (reformation); second, methanol synthesis with a Cu/Zn/Alumina catalyst, and finally, crude methanol (water containing) purification via distillation.

APPLICATION

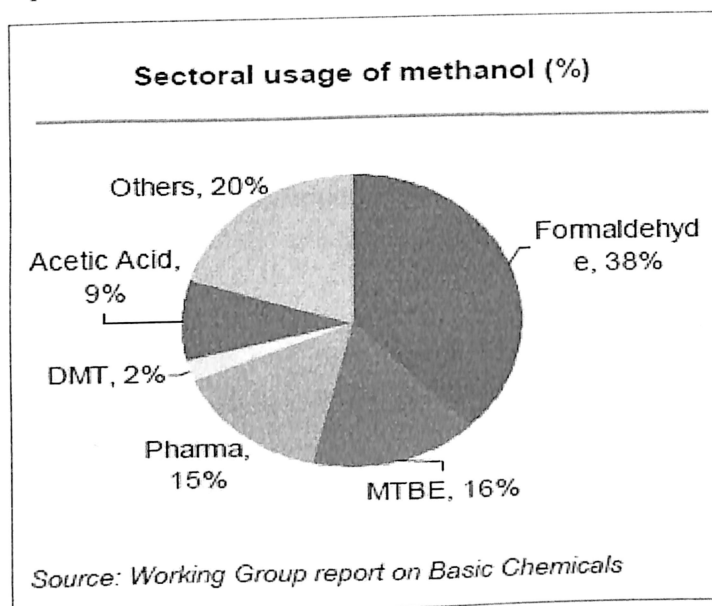
Methanol has also been used as an “alternative fuel.” In Europe, methanol is used in the production of biodiesel, which can replace refinery based diesel for use in transportation. And it is used directly as a blending component of gasoline, driven by the need to extend the octane number.

There is also significant commercialization effort underway in two developmental uses for methanol: fuel cells and methanol-to-olefins (MTO or GTO – gas to olefins). Fuel cells can utilize the hydrogen molecules of methanol (as well as other fuels) to create electricity (and water). MTO/GTO utilizes methanol as an intermediary step in the production of olefins and their derivatives (ethylene, propylene, polyethylene, and polypropylene).

CHAPTER 2: ECONOMIC ASPECTS IN GUJARAT

METHANOL

Methanol is a very versatile chemical primarily produced in India from natural gas and naphtha. Alternative routes for production of methanol are coal and petcoke. Coal and petcoke route is however not yet commercialized. Current methanol consumption is 1.5 million tonnes. The demand is growing at 10% and is expected to continue to be met through imports. The two major end-use segments for methanol are chemical and energy. In the chemical segment, methanol is used for production of formaldehyde, acetic acid, di-methyl terephthalate (DMT) and a range of solvents. The consumption of methanol in the energy segment is substantial as blending component for petrol and methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME) and di-methyl ether (DME). In India, the usage pattern for methanol has remained unchanged over a period of time with formaldehyde sector accounting for bulk of the consumption. Considering the diverse uses of methanol and its potential for use in the energy sector, the industry estimates that current demand growth of 10% would be sustained with relatively higher growth in the energy segment. It is estimated that by end of XIIth Five Year Plan period, demand of methanol would reach 2.5 million tonnes thus providing substantial opportunities for domestic industry in this sector. The current production capacity in the country is 0.385 million tonnes thereby creating gap of 2.115 million tonnes which would primarily met through imports from Middle East and China. Investment opportunity exists for a world scale capacity of over 2 million tonnes.



Currently around 32 percent of methanol is consumed in the production of formaldehyde. This is anticipated to fall to 25 percent by 2016 with Gasoline/Fuel applications becoming the largest demand sector, totaling 31 percent. Formaldehyde uses are very diverse, common applications are into the wood industry as adhesives, disinfectant / biocide and photographic industries. Methanol to Olefins (MTO) and methanol to propylene (MTP) demand is anticipated to become a high growth sector, rising from 6 percent of end user demand in 2011 to 22 percent by 2016, the vast majority of which is forecast to take place in China

Chapter 3 Market Scenario of Industry

MARKET SCENARIO OF LAMINATE INDUSTRY

The world Laminate industry is excited by the rising level of technology and aesthetic advancement. Production technology of Laminate industry has undergone refining changes so as to support new emerging designs and patterns, such as three dimensional surface, metal surface and gloss.

Technical improvement can be seen in the next generation laminates which have thin microscopic particles of aluminum oxide which acts as a protective layer, providing abrasion, and scratch resistance, gloss/ color retention.

It is expected that with continuous use and innovation of Laminate industry, will trigger product end use diversification from conventional uses to newer application in the field of consumer audio-visual electronics and interior fitting of automobiles such as cars, boats and caravans.

Market growth for Decorative Laminates is the response of inspirational fashion and cultural trend in interior design. The wide range of designs, texture, color and style are helping laminate industry keeping their consumer interest and setting new stage for innovation.

Sale of Decorative laminates in United States was about US \$7 billion (Rs 42,000 crores) in 2008. Global market in 2009 was about US \$21.2 billion (Rs 1, 27,200 Crores). The European market accounts for about 28.5 % revenue worldwide. There is a huge demand of laminates in developing nation, the sales of decorative laminates in Asia Pacific in 2012 was about \$ US 3.48

In the 2008 and 2009 there was a decline in global laminate flooring market because of worldwide economic recession. The negative impact of recession was seen in every sector of the economy. While the over capacity of laminates resulted from weak demand from market, reduced margin, the increase in oil price, production of wide range of resins, has pressured the manufacturer of laminates. It is expected that new construction in the coming years will boost the demand for laminates. Economic recovery is expected to increase the disposable income of the people, thereby increasing the demand for home renovations, which is likely to create new demand for floor replacement, and thereby creating opportunity for laminate flooring.

Europe represents the largest regional market for laminate flooring worldwide as per the new market research report on Laminate flooring. Ecological awareness among Europeans including design, durability and uncomplicated installation of laminate flooring is the driving force in the region. European producers dominate the global market with their advance technology and their entrepreneurship; many of the producers are now making global presence by directing their Research and development towards product enhancement. Asia-Pacific represents the fastest

growing market for laminate flooring. Technological advancements, development of glueless laminates, and improved moisture resistance are playing a major role in the market growth in the Asia-Pacific region.

MARKET SCENARIO OF PLYWOOD INDUSTRIES

PLYWOOD is an industry, which has tremendous potential and growing at a great pace. Moreover, with the recent growth in the housing sector, plywood and laminates are likely to play a more prominent role in the future. The Indian plywood industry has estimated annual revenues of Rs 25,000-30,000 crore, and is dominated by unorganized players. India's annual plywood and panel product market is estimated at Rs.100 billion in value in fiscal 2009-10 and is expected to grow 20% per year. The plywood market in India is highly fragmented with small and medium sized companies accounting for almost 75% of the total market.

The slowdown in real estate, lack of support from the government, and the invasion of the Indian market by Chinese products, paused the growth of the industry during the calendar year 2012. Where Mayur Plywood did 40 per cent growth in the first two quarters of calendar year 2012, Mayur Plywood has subsequently grown by 20-25 per cent, primarily owing to the slump in the real estate sector.

Greenply Industry Ltd, promoted by the Mittal's, is a leader in the plywood and laminate industry. In the last decade, this company recorded a compounded annual growth rate of 1200 per cent. Indian plywood industry is as big as Rs 5,000 crore and the laminate industry is almost Rs 3,000 crore. The industry is growing at a rapid pace of 10-20 per cent per annum. Approximately 600 units are currently functioning all over the country. There is tremendous growth potential as the players are yet to penetrate majority of the market.

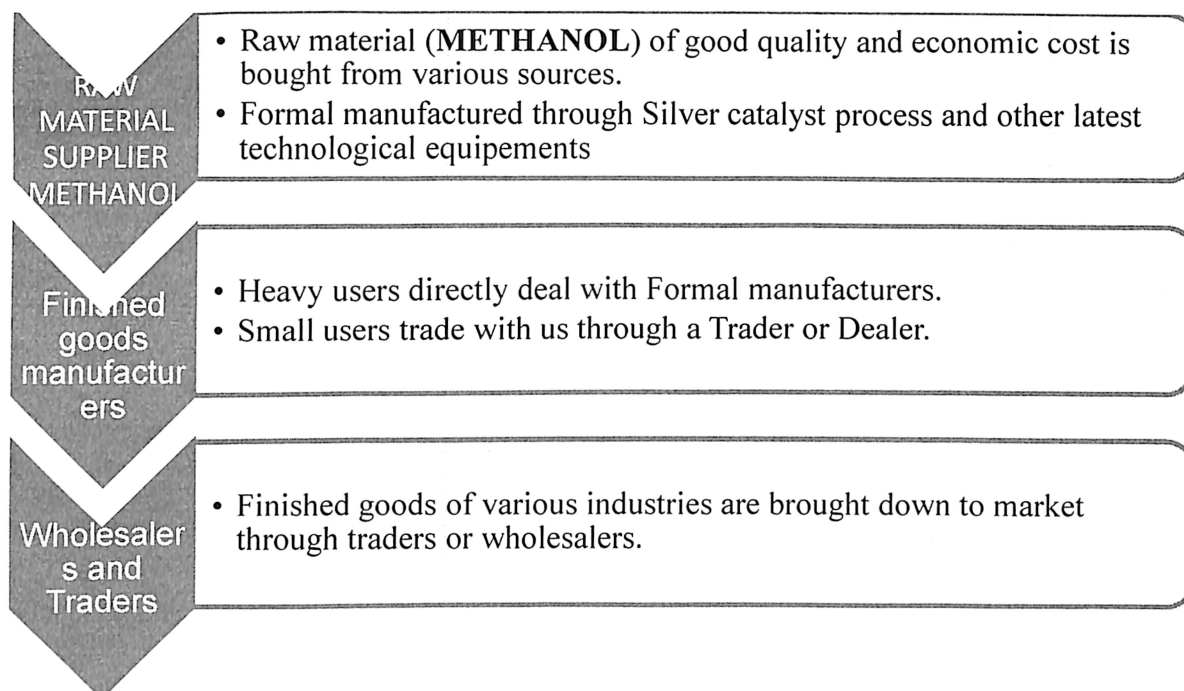
The worst aspect of the industry is that the organized players hold only 10 per cent market share and the rest is with the unorganized players. Among the organized players, there are Century Plywood and Greenply Industry Ltd. Similarly in laminates, there are about four major players holding a similar amount of market share.

Moreover, the market is not appreciating good quality. People are only opting for cheaper but inferior varieties. So, the plywood companies have started training the carpenters and also trying to educate the architects the advantage of using better quality plywood.

Consumption within the global plywood market has been projected to exceed 85 million cubic meters by 2018, owing to notable demand from emerging markets across Asia, Latin America and Europe. The housing market, the key determinant of the growth of the plywood market, suffered seriously across the globe during 2008 and 2009, leading to a noticeable drop in demand for plywood. Now, though the plywood sector has witnessed a marginal recovery in demand in 2011, future growth in the market primarily relies on the recovery of the housing sector, which is poised to readily absorb the new capacity.

CHAPTER 4:

BUSINESS CHAIN OF FORMALDEHYDE



1. RAW MATERIAL SUPPLIER (METHANOL)

The raw material is purchased by Formaldehyde manufacturer from the raw material supplier, i.e. Purchase of methanol from methanol supplier so formaldehyde manufacturer can convert that methanol to formaldehyde. As it is a commodity product, price of the product is the main concern and company focuses on buying best quality methanol at competitive prices.

When formaldehyde is made from methanol the ratio is 1:2, i.e. from one tanker of methanol, generates two tanker of formaldehyde.

2. MANUFACTURER OF FORMALDEHYDE

Formaldehyde manufacturer generally adopt traditional Silver based catalyst process which gives 37% methanol content or 0.01 specific density formaldehyde, which is generally accepted and prevalent in formaldehyde industry users .i.e. majorly in plywood , laminates and in other sectors like textiles and biological preservatives.

Formaldehyde can also be manufactured from metal oxide process but it's not economic viable, and the purity it offers is around 54% methanol content which is not accepted according to Indian trend. Metal oxide process is prevalent in foreign countries according to their industry demand and here the catalyst is far more durable than traditional silver based catalyst.

3. INDUSTRY CUSTOMERS FOR LARGE DEMAND

Every organization focuses to cater its manufactured product to large mouth .i.e. large user of their product. In Formaldehyde business companies focuses on Industries like Plywood and Laminates. Here the monthly consumption is large compared to other Industrial users of formaldehyde.

As it is a commodity product and the price of 1 liter of formaldehyde is less than the price of 1 liter of packaged drinking water. So price factor plays a major role for both the party i.e. for manufacturer and industrial user.

Large formaldehyde consumer is directly charged for freight charges by the formaldehyde manufacturer according to the distance travel, from boarding point of product to the destination point of the product.

4. TRADER / AGENT / MEDIATOR FOR SMALL INDUSTRY FORMALDEHYDE USER.

When there are many small industrial users of formaldehyde with demand of around 2 to 3 tons in an area, than the best possible way to cater the demand of all these small industrial customers is to appoint a local trader/ agent / mediator who will help formaldehyde manufacturer to do business with them.

Trader/ Agent/ Mediator are the sole person who is responsible of business activities in that area. The purpose of appointing a trader is to do business and to cover maximum small industrial users.

5. WHOLESALER / TRADER FOR FINISHED PRODUCT

This is final stage of formaldehyde business, the finished product; example laminates (industrial & decorative) and Plywood is the finished product which is delivered to Wholesaler/ Trader at competent prices. The finished product is brought down to market for consumers.

CHAPTER 5:

Global Production of Formaldehyde:

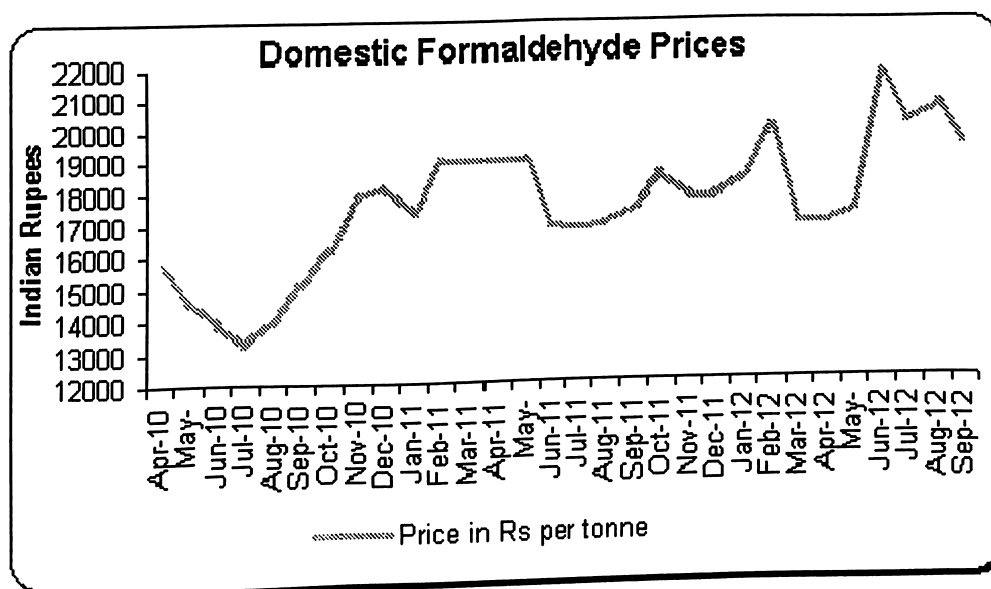
In 2010 both global production and consumption of formaldehyde reached 29 million metric tons. However, formaldehyde consumption is expected to grow 5 % per year during the period of 2011-2015. By 2020 average global utilization rates are estimated to reach 80MMT. Annual Consumption Growth of 5% is expected of Formaldehyde Market.

Formaldehyde: Prices fall as slackening demand

Methanol prices rose but Formaldehyde prices eased sequentially, triggering fall in margins in September 2012 from August 2012; but margins remain higher on y-o-y basis.

Formaldehyde prices turned southward in September after slight improvement last month, with latest price average was at Rs 19500 per tonne, down 6% from August, but remain 12% higher from corresponding year earlier. Indian formaldehyde prices have gained 15% in the current financial year, but off 10% from peak of Rs 21750 recorded in June. Decline in formaldehyde prices mostly happened due to sluggish demand trajectory from its key users, which influenced by sluggish economic growth.

In addition, fall in key raw material methanol prices in recent month pressured domestic formaldehyde manufacturers pass it benefit to its key users.



Formaldehyde manufacturing business heavily relies on the production of the additive in wood products, which mostly used in housing and construction market, along with automotive and furniture.

Rating agency Standard & Poor's (S&P) on September 24, 2012 lowered growth forecast for Asia Pacific countries, featuring a slowdown in China, on-going troubles in the Eurozone, and a weaker recovery in the U.S. The ratings have lowered base case forecasts of 2012 real GDP growth by about half a percentage point for China to 7.5%; Japan to 2.0%; Republic of Korea to 2.5%; Singapore to 2.1%; and Taiwan to 1.9%. S&P also revised down its forecast by about one percentage point each for Hong Kong to 1.8% and India to 5.5%. For Australia, the forecast is marginally down to 3.0% from 3.2%. The forecasts for other Asian economies remain unchanged except for the Philippines, which went to 4.9% from 4.3%, reflecting the on-going strength of that domestic economy.

Rating agency Fitch Ratings said in its latest report that the Indian real estate sector continues to be Negative for second half of 2012, due to persistent sluggish demand, high construction costs and liquidity pressures. According to Fitch, in the backdrop of Reserve Bank of India's caution on interest rate cuts, high equated monthly instalments (EMIs) will continue to be a deterrent for potential home buyers. This, along with high property prices and elevated inflation will keep demand sluggish, the report said.

The Society of Indian Automobile Manufacturers (SIAM) said last month that Indian auto industry is showing signs of slowdown. SIAM data for April-July 2012 indicates that although the sector crawls in terms of sales, utility vehicles grew strong, clocking 53% growth over same time last year. The cumulative production data for April-July 2012 shows production growth of 7.10% over same period last year. The industry produced 1,746,840 vehicles in July 2012 as against 1,656,014 in July 2011. The overall growth in domestic sales recorded 9.34% during April-July 2012 over same period last year, while overall automobile exports registered negative growth at (-4.03) percent during same period.

Domestic methanol prices recovered in September after falling to lowest level in current fiscal year last month. The price climb was attributed to improved buying sentiments following quantitative easing measures from major countries to spur economic growth. The domestic methanol prices fell last month due to huge import that affected negatively on prices. But prices fall stabilized late last month and firmed up a bit in line with firmer Methanol CFR India prices in the current month.

Indian formaldehyde price expected mild correction in near term amidst sign of tight demand prospects from its key users i.e. housing and construction market, along with automotive and furniture, amidst RBI's decision to keep rates unchanged and sign of slowing domestic as well as global manufacturing activities.

But, domestic formaldehyde producers may not impact severally as formaldehyde-methanol margin remain in comfortable level despite slight rise in key raw materials prices. Meanwhile price trend look lucrative in medium term amidst expectation of some rate cuts measures from

Indian Reserve Bank in the next policy to spur growth in the real estate sector (its key users) and for the economy also.

However, long-term demand viability remains uncertain amidst impact of regulatory actions. Dark cloud over futures demand become significant on tighter regulation imposed on the industry to regulate formaldehyde levels in the air, building and decorating materials, textiles, water and food.

Threat to industry:

Formaldehyde is an organic chemical compound often used with other chemical compounds as a base for polymers. Polymers are used in a wide variety of consumer products, from automobiles to building materials to health and beauty products. Formaldehyde has been classified as a probable human carcinogen by the U.S. Environmental Protection Agency (EPA) and also known human carcinogen by the World Health Organization's International Agency for Research on Cancer (IARC). Chinese government has issued a series of standards to regulate formaldehyde exposure, concentrations in homes, office buildings, workshops, public places, and foods.

Demand for Methanol in the Production of Formaldehyde:

In 2011, methanol demand for the production of formaldehyde represented approximately 33% of global methanol demand.

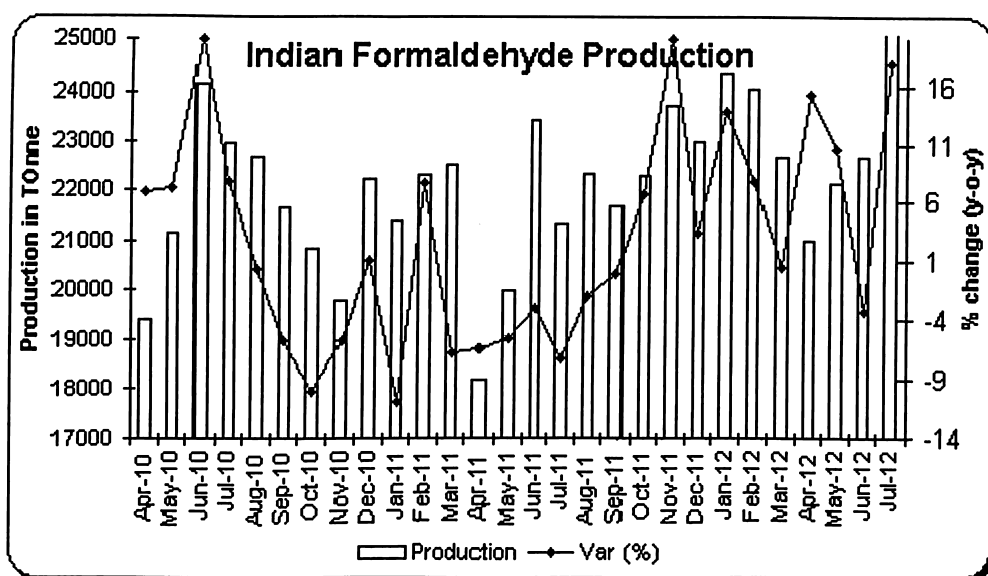
Raw material-Methanol Prices:

Indian methanol prices recovered in September after falling to lowest level in current fiscal year last month. In India, latest price average for methanol for September quoted at Rs 28000 per tonne, grew 9% sequentially and 8% annually. In 2013 FY, Methanol prices average touched peak of Rs 34000 per tonne in June, whilst it had quoted lowest of Rs 25750 per tonne in August. CFR India prices were assessed up at the \$327.7 per MT in September, up 5% prior month quote of \$313.2 per MT.

The Asian Posted Contract Price (APCP) of the global major Methanex Corporation has kept methanol prices at \$425 per MT in September 2012, unchanged from last month, but down 10% from corresponding year earlier. The APCP had increased 9% m-o-m to \$480 per MT in July, a highest in current fiscal year.

Kanoria Chemicals and Industries (Kanoria) is the largest producer of formaldehyde in India, with installed capacity of 1.8 lakh TPA. Allied Resins & Chemicals has the second largest formaldehyde producer with installed capacity of 60,000 TPA. Hindustan Organic Chemicals, with 33,000 TPA capacities, standing third largest Indian formaldehyde producer. Atul has an installed capacity of 20,000 TPA of formaldehyde. Venlon Enterprises has installed capacity of 12,000 TPA of formaldehyde.

All the domestic players are multi product companies with none of them focusing on formaldehyde as a major product.



Outlook:

The domestic formaldehyde prices fell to Rs 19500 per tonne in September from Rs 20700 per tonne in August. Decline in formaldehyde prices mostly happened due to sluggish demand trajectory from its key users, which influenced by sluggish economic growth.

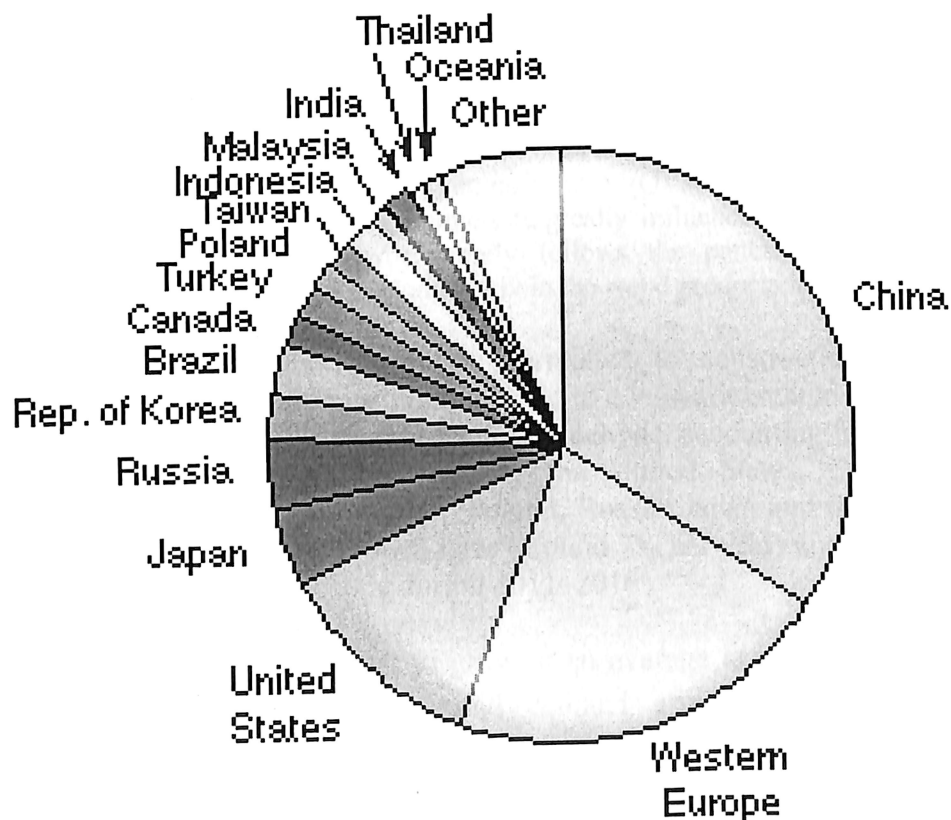
In spite of price fall, sharp gains in formaldehyde price than its key raw material in current financial year has given cushion to the domestic players on their earning margin. Indian formaldehyde prices have gained 15% during April-September period as compared to 4% rise in its key raw material Methanol.

Moreover, price contraction in formaldehyde from its peak period of June was relatively lesser than its major raw material (methanol fall 18%, while Formaldehyde down 10%).

But if methanol prices fall further, there is a possibility of steeper correction in formaldehyde prices too, considering sluggish demand.

If the real estate and construction sector revives from current levels, it will facilitate better growth in demand for formaldehyde in India. As per planning commission, India's demand for formaldehyde is 2.5 lakh tonne per annum, which is growing at 3% per annum and the demand can grow to 3.0 lakh tonne by 2016-17.

World Consumption of 37% Formaldehyde—2011



CHAPTER 6: DEMAND OF FORMALDEHYDE

Urea, phenol and melamine formaldehyde resins (UF, PF and MF resins) accounted for about 63% of world demand in 2011; other large applications include polyacetal resins, pentaerythritol, methylene is (4-phenyl isocyanate) (MDI), 1,4-butanediol and hexamethylenetetramine.

Most formaldehyde producers are concerned primarily with satisfying captive requirements for derivatives and/or supplying local merchant sales. Formaldehyde is usually produced close to the point of consumption since it is fairly easy to make, is costly to transport and can develop problems associated with stability during transport.

As a result, world trade in formaldehyde is minimal. The following pie chart shows world consumption of 37% formaldehyde: Construction/ remodelling activity, vehicle and furniture production, and original equipment manufacturer (OEM) account for most world consumption of formaldehyde. Demand for these markets is greatly influenced by general economic conditions. As a result, demand for formaldehyde largely follows the patterns of the leading world economies. Formaldehyde resins are used predominantly in the wood products industry as adhesives.

Growth of these resins is strongly correlated to construction/remodelling activity (which accounts for over 50% of consumption), and to a lesser degree, to the automotive industry. China is the largest single market for formaldehyde, accounting for about 34% of world demand in 2011; other large markets include the United States, Canada, Brazil, Germany, the Netherlands, Spain, Italy, Belgium, Poland, Russia, Japan and the Republic of Korea. China is forecast to experience fast growth rates (around 7% per year) and significant volume increases in demand for 37% formaldehyde during 2011–2016.

World consumption is forecast to grow at an average annual rate of almost 5% during 2011–2016. Continuing significant-to-rapid demand growth in Asia (mainly China) for most applications will balance out moderate growth in North America, Western Europe, Africa and Oceania. Central and South America, the Middle East, and Central and Eastern Europe are forecast to experience significant growth in demand for formaldehyde during 2011–2016, largely as a result of increased production of wood panels, laminates, MDI and pentaerythritol.

CHAPTER 7: Worldwide Supply and Production of Formaldehyde

Consumption of Formaldehyde is mainly dependent on Construction, Furniture and Automotive market. In developed economy the growth in Formaldehyde demand is dependent on Gross Domestic Product (GDP) as it is correlated to the construction industry.

Formaldehyde is a common Precursor i.e. it is used as an intermediate in the formation of more complex compounds. Formaldehyde by combining with other materials helps in generation of several versatile products such as Urea Formaldehyde, Phenol Formaldehyde, Melamine resins, Polyoxy methylene Plastics, etc.

In Automobile sector Formaldehyde based material are key to manufacture of several important components such as in Transmission, electrical system, engine block, door panels, axels and brake shoe.

In Textile Industry Formaldehyde based resins are used as finishers in making fabric crease-resistant.

The world total supply and production of Formaldehyde increased by (4.9%) from 40911 MT in 2012 to expected 42925 MT in 2013.

There was a significant decrease of about (6.6%) in supply and production of Formaldehyde in 2008 and 2009 due to global set back industries caused by recession.

In the developing nations the supply of Formaldehyde is increased due to the wide scale construction which is supported by their growing economy. After the global recession the supply and production of Formaldehyde is increasing worldwide. According to the past 4 years data there is growing scenario of supply of formaldehyde at the mean rate of (8.13%) annually.

The total capacity of Formaldehyde worldwide increased at a rate of 1.45% from the year 2012 to 2013 i.e. from 48213 MT to 48913 MT.

As we know Formaldehyde is used as a common precursor by combining with urea, phenol and melamine, producing versatile useful resins, its demand worldwide from 2012 to 2013 annually is increasing at a rate of about (5.7%) for UF, (4.4%) for PF and (6.25%) Melamine respectively.

CHAPTER 8: MAJOR PARAMETERS FOR FORMALDEHYDE

- PRICE
- QUALITY
- LOGISTICS
- SERVICE

PRICE

Price of Formaldehyde is commodity based; its price varies daily in market. Formaldehyde Price is directly related to the price of Methanol as we know that conversion of Methanol to Formaldehyde with the help of silver catalyst is in a ratio of 1: 2. In price we cannot bluff to our customer (Laminates) because they also use Methanol in their product the ratio of Formaldehyde to Methanol usage in Laminate plant is around 20: 2. So the best price should be offered because market is very competitive.

Formaldehyde basic pricing is the half of Methanol price for gross price, conversion charges, lifting material from port and freight charges (if any) are included. The addition only includes Rs 0.5 per Kg conversion charges; Rs 1 is the freight charges and Rs1 lifting material from port to plant. Now Adding Excise and VAT in the basic price, Excise is around 12.36% as per applicable by Gujarat government and VAT is around (5%) which is common.

The Freight charges levied on the cost of Formaldehyde depend on the price of various factors such as: Diesel Prices: In case of Formaldehyde manufacturing Business the Logistics department is not under single supervision compared to Railways Logistics. As we know that Diesel prices hike every day due to growing demand arising from every industry around the globe 24/7.

Here one major problem arises that when Diesel prices hike the logistics department of every methanol supplier hike their price but when the prices goes down they do not reduce their price. So this gives the reason why logistic department of formaldehyde industry is not under one supervision.

LOGISTICS

The logistics department of such chemicals industry is not under one supervision every manufacturing department has his own mind set regarding logistics charges and price raised by one industry varies from the increase price of formal by other industry.

For transportation of such chemicals (Methanol, Formaldehyde) there is a special tanker which is manufactured at a cost of 25 to 32 lakhs with chases, the additional cost of Rs 12 to 16 lakhs for

16 MT tanker installations on the chases and after complete installation the tanker is around 50 lakhs.

In this industry it's not economic viable that every manufacturer has its own tanker fleet so they hire tankers on contract basis only when the number of trips is lesser than expected.

The expense of driver wages is also one cost which every company has to bear.

For safety in transportation and handling during work Formaldehyde should be transported only in original containers, fully labeled with hazchem code and it is stored in the vehicle (Tanker) to avoid spillage and breakage. MSDS (Material safety Data Sheet) should be available to the user and to those working with it.

The cost involved in total process of formal and delivery, the demand rate of chemicals, and also the number of trips made by a tanker daily.

QUALITY

The quality of Formal on standard basis is taken as 37% purity with (1 to 1.2)% methanol content and 42 % formal quality contains (1 to 4)% methanol content. Quality of formal remains same for 2 to 3 days. For longer storage special storage tankers are employed. For Purity the temperature should be around 25 Deg c, but during transportation generally temperature rises and this creates a solid film over the surface of formal and thus, deteriorating the quality of formal. For the Formal purity the product needs to be stored and delivered in tankers with proper installation

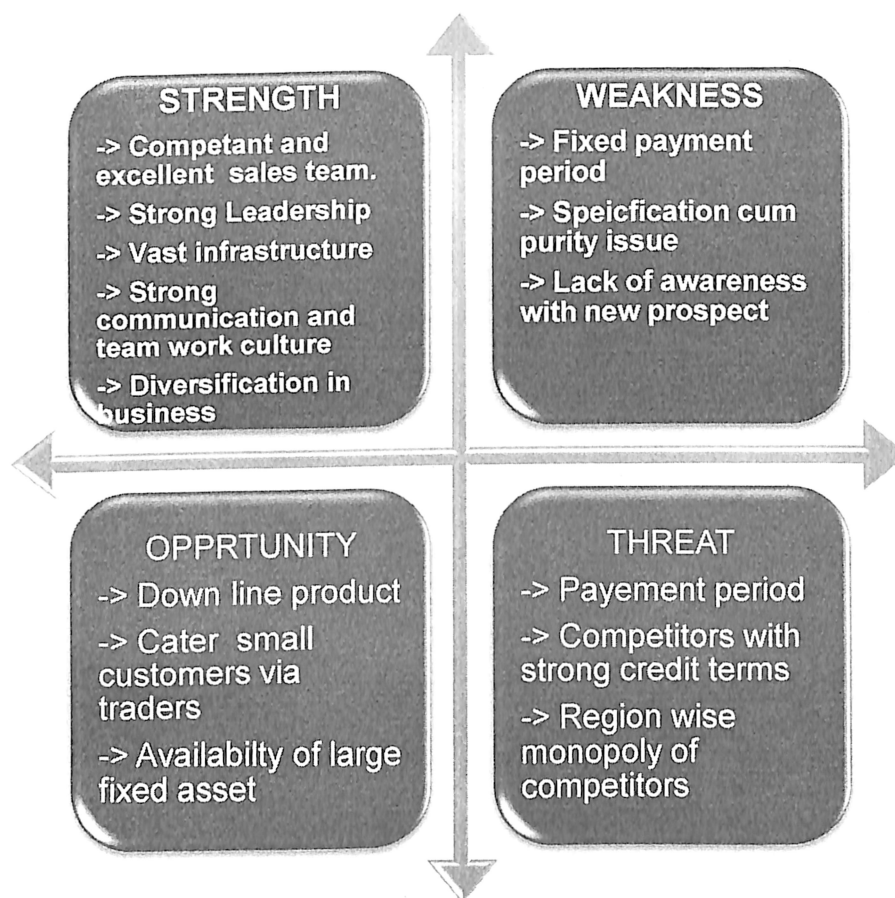
SERVICE

The service is one factor that helps any organization to create a USP in market for its product. It is an important factor which helps to trigger the sales of the product the quality of Formaldehyde is also a major concern for manufacturer as well as consumer.

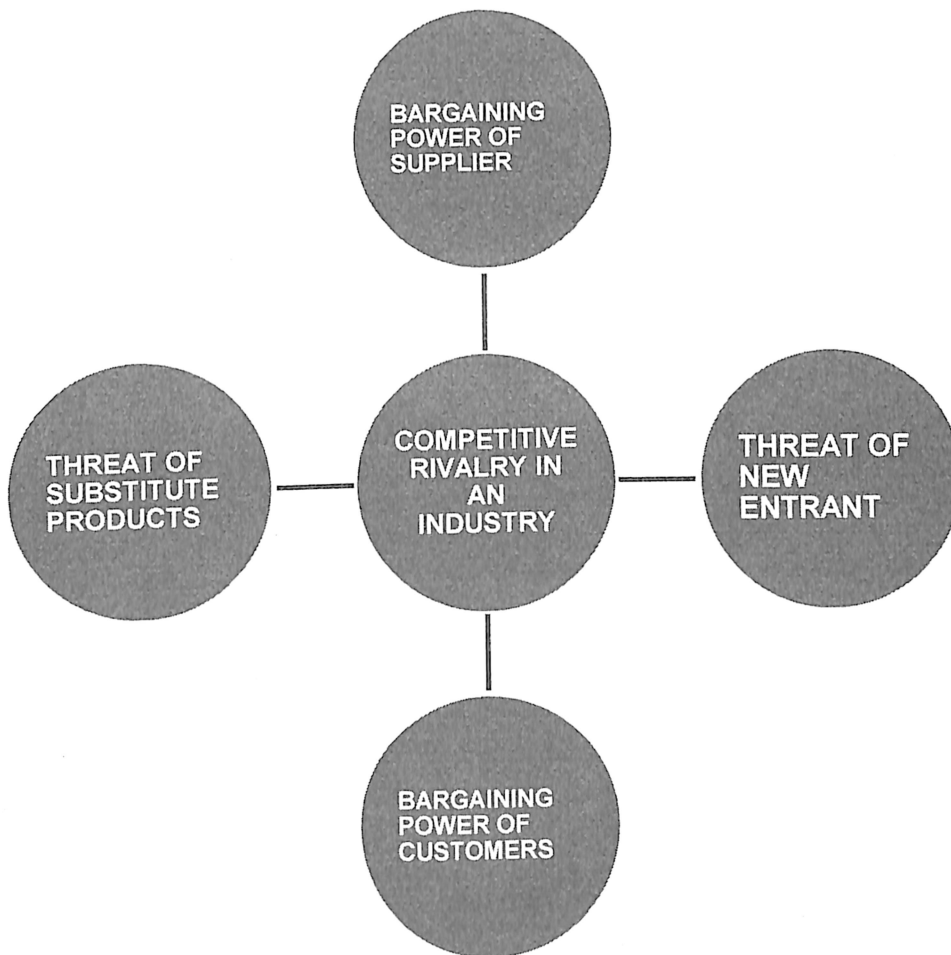
It is important for Formaldehyde Producer to give its customer the best competitive price and simultaneously try to get the purchase order of half the requirement in case of new and non-committed customer. In this industry good relation also helps in business.

CHAPTER 9: Research Methodology:

SWOT ANALYSIS



PORTERS 5 (FIVE) FORCES MODEL



BARGAINING POWER OF SUPPLIERS

We should know how to counter the bargained price of methanol in order to buy the raw material for our unit in reasonable amount.

In case of selling formaldehyde we should know how to sell formaldehyde at our specified price without incurring losses.

THREAT OF NEW ENTRANTS

In this industry the threat of new entrant is few, because getting the license of formaldehyde manufacturer is a tough job. The existing formaldehyde manufacturer are strong players, they generally have strong monopoly in the market and regions.

BARGAINING POWER OF CUSTOMERS

Customers are generally industries i.e. Laminates and Plywood industries who ask for:

1. Long Credit Days
2. Without Bill Delivery

THREAT OF SUBSTITUTE PRODUCTS

There is no threat of Substitute Products, because Formaldehyde can only manufacture from Methanol. No other source can deliver the same quality and quantity of formaldehyde required in Industries.

COMPETITIVE RIVALRY IN AN INDUSTRY

Competitors of SRPL (Shreenathji Rasayan Pvt Ltd) generally create myth among Industrial customers by making negative word of mouth about the quality of formaldehyde delivered by SRPL.

Rivals of SRPL, also to retain the customers gives false information about future prices of Formaldehyde. Therefore creating a doubt in the mind of industrial customers

CHAPTER 10: MONTHLY AND YEARLY CONSUMPTION

Monthly and Yearly Consumption of Formaldehyde in RAJKOT

| S.NO | NAME OF THE COMPANY | PERSON CONTACTED | MONTHLY POTENTIAL METRIC TON | YEARLY POTENTIAL METRIC TON |
|------|-----------------------------------|----------------------|------------------------------|-----------------------------|
| 1. | JM Industries | Mr. Mihir Rughani | 75 | 900 |
| 2 | Color Lam laminates | Mr. Mihir Rughani | 70 | 600 |
| 3 | HARMONY LAMINATES PVT.LTD | Mr. Samir Joshi | 150 | 1800 |
| 4 | Vishal Board and Plywood | Mr. Shyam Bhatiya | 15000 Liters | 18000 Liters |
| 5 | Decora Laminates | MR. NILESH SAVALIA | 40 | 480 |
| 6 | LITTLE MAN PRODUCT | MR. PARESH | 40 to 45 | 540 |
| 7 | MAHADEV LAMINATES PVT. LTD | MR. OMPRAKASH JI | 60 | 720 |
| 8 | VISION LAMINATES pvt. Ltd | Mr. Aravind Patel | 50 | 600 |
| 9 | SARDA PLYWOOD INDUSTRIES LTD | Mr Uttam Kumar Gupta | 80 | 960 |
| 10 | BALAJI LAMINATES | Mr. Ramesh Bhai | 20 | 240 |
| 11 | SHREE SAINATH DÉCOR:LLP (SAINATH) | Mr. Itesh Patel | 40 | 480 |

| | | | | |
|-----|----------------------------------|-----------------------|----------|------------|
| 12 | KUNJ LAMINATES | MR. VINU PATEL | 45 | 540 |
| 13. | ADVANCE LAMINATES (HOME MICA) | MR. SAMEER LODOLEN | 40 to 45 | 480 to 600 |

TOTAL FORMALDEHYDE CONSUMPTION IN RAJKOT 2013

MONTHLY (IN TONS) = 734.40 Tons

YEARLY (IN TONS) & 8460 TONS

DISTANCE FROM CHHATRAL (PLANT) TO RAJKOT: 249 km NH 8A :3 hours, 43 min

DISCUSSION WITH FORMALDEHYDE IN RAJKOT

| S.NO | NAME OF CUSTOMER | CONTACT PERSON | DISCUSSION AND REVIEWS |
|------|---------------------------|--------------------|---|
| 1. | HARMONY LAMINATES | Mr. Samir Joshi | Satisfied client has excellent work history and payment delivery. Wants more competent price and interested in down line products of SRPL. |
| 2. | JM INDUSTRIES | Mr. Mihir | Complaint about Least quality and high price product . Want to do business again with SRPL. |
| 3. | Color Lam Laminates | Mr. Mihir | If price is competent to him, he will consider doing business with us, interested in down line expansion of SRPL. |
| 4. | Vishal Board and Plywood | Mr. Shyam Bhatiya | Facing (5 to 10) % quality issue with current supplier Very interested party want to do business for formaldehyde and down line products (Melamine Powder, Urea and Phenol Formaldehyde and Methanol). |
| 5. | Decora Laminates | Mr. Nilesh Savalia | Started in 2006 with an initial investment of 1 crores , wants price benefit and has complain about previous formaldehyde quality. |
| 6. | Little man Product | Mr. Paresh | Running Plant since 25 years, satisfied customers of formaldehyde, interested in down line product. |
| 7. | Mahadev Laminates Pvt Ltd | Mr. Omprakash ji | Factory Operates only for 12 to 16 hours, started business 1 year before. Has some Payment issue with SRPL. But a reliable customer can capable of long term relationship business. |
| 8. | Vision Laminates Pvt Ltd | Mr. Aravind Patel | Satisfied customer of SRPL, has small plant and doing consistent business. Has some purity issue with early Formaldehyde delivery of SRPL. |

| | | | |
|-----|-------------------------------|-----------------------|--|
| 9. | Sarda Plywood Industries Ltd | Mr. Uttam Kumar Gupta | Has 25 to 30 storage facility for formaldehyde, focusing to reduce operating cost and requires quality formaldehyde from SRPL. |
| 10. | Balaji Laminates | Mr. Ramesh Bhai | Unable to run the plant effectively because of improper supply and technical problems within the plant. |
| 11. | Shree Sai Nath Décor (LLP) | Mr. Itesh Patel | New customer and very Interested in doing business with SRPL is highly impressed with SRPL. Requires monthly 2 tankers. |
| 12. | Kunj Laminates | Mr. Venu Patel | Wants good, steady service of formaldehyde. Is a new client to SRPL, has Cement manufacturing business attached to Laminates manufacturing plant. Doing business since 15 years. Has high expectation with SRPL and is very Practical by nature in business. |
| 13. | Advance Laminates (Home Mica) | Mr. Sameer Lodolen | Wants long credit days, interaction with company was not satisfactory for me as they gave the basic data of formaldehyde after long time. Interested in Down line Product. (Melamine powder, Urea Formaldehyde, Phenol Formaldehyde, Methanol) |

Monthly and Yearly Consumption of Formaldehyde in MORBI

| S.no | Name Of The Company | Contact Person | Monthly Potential | Yearly Potential |
|--|---------------------|-------------------|-------------------|------------------|
| 1. | Samarpan Laminates | Mr. Amit | 100 | 1200 |
| 2. | Riona Laminates | Mr. Kishan Bhai | 80 | 960 |
| 3. | Monal Laminates | Mr. Anand Patel | 100 | 1200 |
| 4. | Suntouch Laminates | Mr. Kamlesh Bhai | 100 | 1200 |
| 5. | Bell Laminates | Mr. Kishan | 100 | 1200 |
| 6. | Rainbow Laminates | Mr. Amit Bhai | 130 | 1560 |
| 7. | Apoorva Laminates | Mr. Kanti Lal | 300 | 3600 |
| 8. | Rangoli Laminates | Mr. Manoj | 135 | 1620 |
| 9. | Ark Lamicraft | Mr. Raju Bhai | 200 | 2400 |
| 10. | Nakalank Laminates | | 80 to 100 | 960 to 1200 |
| Total Monthly and Yearly Potential of Formaldehyde in MORBI | | | | |
| 1345 MT (Monthly) | | 16140 MT (Yearly) | | |

DISTANCE FROM CHHATRAL (PLANT) TO MORBI: 196 km

Highway :GJ SH 7/NH 947 Time: 3 hours 18 mins

Discussion and Review for Formaldehyde in Morbi

| S.NO | Name Of The Company | Contact Person | Discussion and Review |
|------|---------------------|------------------|---|
| 1. | Samarpan Laminates | Mr. Amit | Satisfied customer and has no complains with SRPL, Interested in down line products. |
| 2. | Riona Laminates | Mr. Kishan Bhai | New to Laminate Manufacturing market, Wants committed suppliers. Main focus is on quality. |
| 3. | Monal Laminates | Mr. Anand Patel | Satisfied customer, looking forward towards the down line product of SRPL. Has big facility and focusing on production and plant expansion. |
| 4. | Suntouch Laminates | Mr. Kamlesh Bhai | Satisfied with SRPL formaldehyde quality, also want down line products and is planning to launch Industrial laminates after one year. |
| 5. | Bell Laminates | Mr. Kishan | Have quality and purity issue with earlier SRPL formaldehyde deliveries. Want sample of down line product. |
| 6. | Rainbow Laminates | Mr. Amit Bhai | Wants more competent price of formaldehyde, was talking about Plant shut down taken by SRPL. Wants Sample of down line products |
| 7. | Apoorva Laminates | Mr. Kanti Lal | Talked about earlier issues of Payment problem with SRPL. |
| 8. | Rangoli Laminates | Mr. Manoj | Told that SRPL has less purity compared to other formaldehyde manufacturer. Wants Melamine powder sample. |
| 9. | Ark Lamicraft | Mr. Raju Bhai | Impressed with SRPL work and its product quality, wants some price benefits. He ask for discounts so he can make early payments |

| | | | |
|-----|--------------------|--|---|
| 10. | Nakalank Laminates | | Have payment and product quality issue, interested in Melamine powder and wants its sample. |
|-----|--------------------|--|---|

Monthly and Yearly Potential of Formaldehyde in Gandhidham

| S.no | NAME OF THE CUSTOMERS | CONTACT PERSON | MONTHLY POTENTIAL Metric Tons(MT) | YEARLY POTENTIAL Metric Tons(MT) |
|------|----------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|
| 1. | Lalson Plywood Pvt Ltd | Mr.Girdhar Vidhani | 50 | 600 |
| 2. | Vidhani Veeners Pvt Ltd | Mr. Jay Vidhani | 40 | 480 |
| 3. | Valley Ply Industries | Mr. Hitendra Joshi | 15 | 180 |
| 4. | Indus Tropic Limited | Mr. MD Sharma | 30 | 360 |
| 5. | Purbanchal Laminates Pvt Limited | Mr. Kapil Pareek | 200 | 2400 |
| 6. | Amulya Mica | Mr. Kapil Pareek | | |
| 7. | Amul Board Pvt Ltd | Mr. Kapil Pareek | | |
| 8. | Landmark Veeners Pvt Ltd | Mr. Kapil Pareek | | |
| 9. | Purbanchal Veeners | Mr. Kapil Pareek | | |
| 10. | Dolby Plywood Pvt Ltd | Mr. Rajesh Bhai/ Mr. Navneeth Goyal | 60 | 240 Tons |
| 11. | Euro Decore Pvt Ltd | Mr. Raman Ji | 60 | 720 |

| | | | | |
|-----|--------------------------|----------------------|----------|-----|
| 12. | Vikash Industries | Mr. Ashok Jain | 5 | 60 |
| 13. | Alora Plywood Pvt Ltd | Mr. Haresh Vidhani | 60 | 720 |
| 14. | Mehta Doco Board Pvt Ltd | Mr. Sandeep Gupta | 20 | 240 |
| 15. | Akash Veeners Pvt Ltd | Mr. Arvind Bhai | 20 | 240 |
| 16. | Shubh Ply and Veeners | Mr. Kamal Lalwani | 10 | 120 |
| 17. | Gayatri Ply Industries | Mr. Ravji bhai Patel | 40 | 480 |
| 18. | Gayatri Veeners Pvt Ltd | Mr. Ravji bhai patel | 20 to 25 | 300 |
| | | | | |

Total Formaldehyde consumption in Gandhidham:

Monthly(Metric Tons)= 635

Yearly(Metric Tons)=7140

Distance from Chhatral to Gandhidham : 285 km NH 947 and NH 8A

Time: 4 hours 27 mins

DISCUSSION AND REVIEW FOR FORMALDEHYDE IN GANDHIDHAM

| S.NO | NAME OF CUSTOMERS | CONTACT PERSON | DISCUSSION AND REVIEW |
|------|----------------------------------|---------------------|---|
| 1. | Lalsan Plywood Pvt Ltd | Mr. Girdhar Vidhani | They do Barter trade with their Formaldehyde supplier. If Price is competent and some discount is given he will do business. Impressed by SRPL and wants Melamine powder sample. |
| 2. | Vidhani Veeners Pvt Ltd | Mr. Jay Vidhani | Impressed with SRPL working and its global existence wants sample of formaldehyde, More conscious about quality. |
| 3. | Valley Ply Industries | Mr. Hitendra Joshi | Told that they do not have the license to do business, wants non bill product, Interested in Methanol wants good price methanol, as they use recycled Methanol. |
| 4. | Indus Tropic Limited | Mr. MD Sharma | New customer for SRPL, is quite dissatisfied with existing suppliers of formaldehyde. Interested in formaldehyde asked for immediate 1 tanker. |
| 5. | Purbanchal Laminates Pvt Limited | Mr. Kapil Pareek | Complaint for not proper timely delivery and some early purity issue. Has some early payment issue. Interested in downline products wants sample of Melamine powder and Methanol. |
| 6. | Amulya Mica | Mr. Kapil Pareek | - |
| 7 | Amul Board Pvt Ltd | Mr. Kapil Pareek | - |
| 8 | Landmark Veeners Pvt Ltd | Mr. Kapil Pareek | - |
| 9. | Purbanchal Veeners | Mr. Kapil Pareek | - |

| | | | |
|-----|--------------------------|-------------------------------------|---|
| 10. | Dolby Plywood Pvt Ltd | Mr. Rajesh Bhai/ Mr. Navneeth Goyal | Facing payment problem, interested in downline products(melamine powder, Urea & phenol formaldehyde and methanol) |
| 11. | Euro Decore Pvt Ltd | Mr. Raman ji | Requires committed service, and at competent price. Wants sample of Melamine powder and methanol. |
| 12. | Vikash Industries | Mr. Ashok Jain | Interested in downline products, wants committed supply with best price and discount. |
| 13. | Alora Plywood Pvt Ltd | Mr. Haresh Vidhani | Wants good quality product , right now satisfied with SRPL. |
| 14. | Mehta Doco Board Pvt Ltd | Mr. Sandeep Gupta | Interested in Melamine powder and wants sample of methanol as it is using small quantity. Focusing on expansion. |
| 15. | Akash Veeners Pvt Ltd | Mr. Arvind Bhai | Wants good credit limit and interested buyer of formal and downline products. |
| 16. | Shubh Ply and Veeners | Mr. Kamal Lalwani | Wants best quality product, interested in melamine, methanol, UF and PF. |
| 17. | Gayatri Ply Industries | Mr. Ravji bhai Patel | New customer interested in formal and downline products. Having rate issue for formaldehyde. |
| 18. | Gayatri Veeners Pvt Ltd | Mr. Ravji bhai patel | Interested in buying formaldehyde, but having some issue with price as according to him its slight costlier to him. |

Monthly and Yearly Consumption of Melamine powder in Rajkot

| S.NO | NAME OF THE COMPANY | PERSON CONTACTED | MONTHLY POTENTIAL METRIC TON | YEARLY POTENTIAL METRIC TON |
|------|-----------------------------------|----------------------|------------------------------|-----------------------------|
| 1. | JM Industries | Mr. Mihir Rughani | 2 to 3 | 36 |
| 2 | Color Lam laminates | Mr. Mihir Rughani | 2 | 24 |
| 3 | HARMONY LAMINATES PVT.LTD | Mr. Samir Joshi | 15 | 540 |
| 4 | Vishal Board and Plywood | Mr. Shyam Bhatiya | 100 Kg | 1200 Kg |
| 5 | Decora Laminates | MR. NILESH SAVALIA | 5 to 10 | 120 |
| 6 | LITTLE MAN PRODUCT | MR. PARESH | No use | No use |
| 7 | MAHADEV LAMINATES PVT. LTD | MR. OMPRAKASH JI | 10 to 12 | 120 to 144 |
| 8 | VISION LAMINATES pvt. Ltd | Mr. Aravind Patel | 3 | 36 |
| 9 | SARDA PLYWOOD INDUSTRIES LTD | Mr Uttam Kumar Gupta | 3 | 36 |
| 10 | BALAJI LAMINATES | Mr. Ramesh Bhai | 2 | 24 |
| 11 | SHREE SAINATH DÉCOR:LLP (SAINATH) | Mr. Itesh Patel | 2 | 24 |
| 12 | KUNJ LAMINATES | MR. VINU PATEL | 2 | 24 |
| 13. | ADVANCE LAMINATES (HOME MICA) | MR. SAMEER LODOLEN | 4 to 4.5 | 48 to 54 |

Distance from Kandla Port to Rajkot =

Time Taken =

Monthly Consumption=158.5

Yearly Consumption of Melamine Powder=1902

Discussion and Reviews of Melamine Powder

| S.no | Name of Company | Contact Person | Discussion and Review |
|------|------------------------------|----------------------|---|
| 1. | JM Industries | Mr. Mihir Rughani | Consumption of around 2 to 3 Tons. Wants best quality Melamine powder. Interested party and wants sample. |
| 2 | Color Lam laminates | Mr. Mihir Rughani | Require small quantity at best price, with discounts. |
| 3 | HARMONY LAMINATES PVT.LTD | Mr. Samir Joshi | Interested buyer was asking about price of melamine powder. Wants sample for first trial. |
| 4 | Vishal Board and Plywood | Mr. Shyam Bhatiya | Was asking about Price of melamine powder which I can deliver to them. The plant is facing problem with current supplier. |
| 5 | Decora Laminates | MR. NILESH SAVALIA | Interested melamine user but wants best services and price. |
| 6 | LITTLE MAN PRODUCT | MR. PARESH | No use |
| 7 | MAHADEV LAMINATES PVT. LTD | MR. OMPRAKASH JI | Has payment issue regarding Melamine powder from other supplier. Interested and wants sample of our product. |
| 8 | VISION LAMINATES pvt. Ltd | Mr. Aravind Patel | Small user but is very good customer according to other suppliers and have very good relationship from his suppliers, interested in buying Melamine Powder. |
| 9 | SARDA PLYWOOD INDUSTRIES LTD | Mr Uttam Kumar Gupta | Uses small quantity, but if our company provide them Melamine Powder at best price, they will be interested in buying. |

| | | | |
|-----|-----------------------------------|--------------------|--|
| 10 | BALAJI LAMINATES | Mr. Ramesh Bhai | Having some problem in Plant operation, small user with good credit limit. Interested |
| 11 | SHREE SAINATH DÉCOR:LLP (SAINATH) | Mr. Itesh Patel | Uses small quantity and that in illegal terms, he asked if SRPL can deliver him product in best quality and price he will buy from us. |
| 12 | KUNJ LAMINATES | MR. VINU PATEL | Uses 2 Tons he wants best competent price of Melamine powder. Interested and wants sample |
| 13. | ADVANCE LAMINATES (HOME MICA) | MR. SAMEER LODOLEN | SRPL is having some payment issues with Home Mica, he desire to buy Melamine powder. |

Monthly and Yearly Potential of Melamine Powder in Morbi

| S.no | Name Of The Company | Contact Person | Monthly Potential | Yearly Potential |
|------|---------------------|------------------|-------------------|------------------|
| 1. | Samarpan Laminates | Mr. Amit | 10 | 120 |
| 2. | Riona Laminates | Mr. Kishan Bhai | 15 to 20 | 240 |
| 3. | Monal Laminates | Mr. Anand Patel | 20 | 240 |
| 4. | Suntouch Laminates | Mr. Kamlesh Bhai | 10 | 120 |
| 5. | Bell Laminates | Mr. Kishan | 10 | 120 |
| 6. | Rainbow Laminates | Mr. Amit Bhai | 15 to 20 | 240 |
| 7. | Apoorva Laminates | Mr. Kanti Lal | 15 | 180 |
| 8. | Rangoli Laminates | Mr. Manoj | 20 | 240 |
| 9. | Ark Lamicraft | Mr. Raju Bhai | 20 | 240 |
| 10. | Nakalank Laminates | | 10 | 120 |

CHAPTER 11:

Safety Precautions:

Formaldehyde is a colourless, strong-smelling gas often found in aqueous (water-based) solutions. Commonly used as a preservative in medical laboratories and mortuaries, formaldehyde is also found in many products such as chemicals, particle board, household products, glues, permanent press fabrics, paper product coatings, fibreboard, and plywood. It is also widely used as an industrial fungicide, germicide and disinfectant.

What employers should know?

The OSHA Formaldehyde standard (29 CFR 1910.1048) and equivalent regulations in states with OSHA-approved state plans protects workers exposed to formaldehyde and apply to all occupational exposures to formaldehyde from formaldehyde gas, its solutions, and materials that release formaldehyde.

- The permissible exposure limit (PEL) for formaldehyde in the workplace is 0.75 parts formaldehyde per million parts of air (0.75 ppm) measured as an 8-hour time-weighted average (TWA).
- The standard includes a second PEL in the form of a short-term exposure limit (STEL) of 2 ppm which is the maximum exposure allowed during a 15-minute period.
- The action level which is the standard's trigger for increased industrial hygiene monitoring and initiation of worker medical surveillance is 0.5 ppm when calculated as an 8-hour TWA.

Harmful Effects on Workers:

Formaldehyde is a sensitizing agent that can cause an immune system response upon initial exposure. It is also a cancer hazard. Acute exposure is highly irritating to the eyes, nose, and throat and can make anyone exposed cough and wheeze. Subsequent exposure may cause severe allergic reactions of the skin, eyes and respiratory tract. Ingestion of formaldehyde can be fatal, and long-term exposure to low levels in the air or on the skin can cause asthma-like respiratory problems and skin irritation such as dermatitis and itching. Concentrations of 100 ppm are immediately dangerous to life and health (IDLH).

Note: The National Institute for Occupational Safety and Health (NIOSH) considers 20 ppm of formaldehyde to be IDLH.

Routes of Exposure:

Workers can inhale formaldehyde as a gas or vapour or absorb it through the skin as a liquid. They can be exposed during the treatment of textiles and the production of resins. In addition to healthcare professionals and medical lab technicians, groups at potentially high risk include

mortuary workers as well as teachers and students who handle biological specimens preserved with formaldehyde or formalin.

How employers can protect workers?

Airborne concentrations of formaldehyde above 0.1 ppm can cause irritation of the respiratory tract. The severity of irritation intensifies as concentrations increase.

Provisions of the OSHA standard require employers to do the following:

- Identify all workers who may be exposed to formaldehyde at or above the action level or STEL through initial monitoring and determine their exposure.
- Reassign workers who suffer significant adverse effects from formaldehyde exposure to jobs with significantly less or no exposure until their condition improves. Reassignment may continue for up to 6 months until the worker is determined to be able to return to the original job or to be unable to return to work whichever comes first.
- Implement feasible engineering and work practice controls to reduce and maintain worker exposure to formaldehyde at or below the 8-hour TWA and the STEL. If these controls cannot reduce exposure to or below the PELs, employers must provide workers with respirators.
- Label all mixtures or solutions composed of greater than 0.1 percent formaldehyde and materials capable of releasing formaldehyde into the air at concentrations reaching or exceeding 0.1 ppm. For all materials capable of releasing formaldehyde at levels above 0.5 ppm during normal use, the label must contain the words "potential cancer hazard."
- Train all workers exposed to formaldehyde concentrations of 0.1 ppm or greater at the time of initial job assignment and whenever a new exposure to formaldehyde is introduced into the work area. Repeat training annually.
- Select, provide and maintain appropriate personal protective equipment (PPE). Ensure that workers use PPE such as impervious clothing, gloves, aprons, and chemical splash goggles to prevent skin and eye contact with formaldehyde.
- Provide showers and eyewash stations if splashing is likely.
- Provide medical surveillance for all workers exposed to formaldehyde at concentrations at or above the action level or exceeding the STEL, for those who develop signs and symptoms of overexposure, and for all workers exposed to formaldehyde in emergencies.

CHAPTER 12:

LIST OF CUSTOMERS NEW AND OLD FOR FROMADHYDE, MELAMINE POWDER, UREA / PHENOL FORMALDEHYDE AND METHANOL

| ame of The ompany | Customer Name | Contact Name | Address | Product Required | Old Cutomer | New Customer | Discussion and review |
|---|------------------------------------|--------------|--|--|--|--------------|---|
| M IDUSTRIE | Mr. Mihir Rughani | 9712359999 | Plot no. 1 survey no.186 Opposite Atul Auto, Veraval N H NO.8, Shapar Rajkot | Formaldehyde Methanol Urea – Formaldehyde Phenol Formaldehyde Methanol | Old Customer but not a frequent Customer | | Old Customer but not a frequent Customer left trade because of poor quality |
| olor Lam dustry | Mr. Mihir Rughani | 9712359999 | Plot no. 1 survey no.186 Opposite Atul Auto, Veraval N H NO.8, Shapar Rajkot | Formaldehyde Methanol Urea – Formaldehyde Phenol Formaldehyde Methanol | | New Customer | The plant is running under trail basis. Ready to do trade if Price is suitable to them. |
| ECORA AMINATE | MR. NILESH SAVALIA (M.D) | 9925237379 | Plot No. 8, NO.26, N.H.8B, Near Decore Coatings Pvt. Ltd Shapar (Veraval) | Formaldehyde Methanol Urea – Formaldehyde Phenol Formaldehyde Methanol | Old Customer | | Old Customer having lots of problem with Product quality. |
| ARMONY AMINATE PVT.LTD | Mr. Samir Joshi (General Manager) | 9099066214 | Plot No. G-1601, Road No.F/5 Almighty Gate, Lodhika Gidc | Formaldehyde Methanol Urea – Formaldehyde Phenol Formaldehyde Methanol | Old Customer | | Satisfied with service and product commitment , but wants quality product. Intested in Job work. |
| UNIVERSITY OF PETROLEUM AND ENERGY STUDIES | | | | | | | Page 40 |

MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT | 2013

| | | | | | | | |
|----------------------------------|--|--|---|---|-----------------|-----------------|---|
| ishal Board id Plywood | Mr. Shyam Bhatiya (Member of Board of Director) | 9978978810 | GIDC Industries Estate, Plot no.1803 Metoda ,Tal Lodhika Dist. Rajkot | Formaldehyde, Urea Formaldehyde, Phenol Methanol | | New Customer | SRPL tried to talk to them but due to Price Issue they could'nt contacted. Interested in Job work and business. |
| VA Industries | Mr. Shyam Bhatiya | 9978978810/ 9825078810 | GIDC Industries Estate, Plot no.1803 Metoda ,Tal Lodhika Dist. Rajkot | Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder | | New customer | The plant is in Bachau. Wants consistent supplier for long term. Interested in doing Business with SRPL. |
| ITTLE MAN RODUCT | MR. PARESH(MD) MR. RULEEN | 982421144/ 9824001244 | Shri Chimanji Tolia Indl. Estate 25/26 Lodhika GIDC Road H-1 | Formaldehyde Ureas(Self Resin) | Old Customer | | Wants good quality material at best price, have some issue regarding Purity. Interested in Urea Formaldehy de. |
| MAHADEV AMINATE S PVT. LTD | MR. OMPRAK ASH JI/ MR. GHANSH YAM SHARMA | 9067488686/8 128818548/ 9426943086 | Survey No. 49/1 , Plot No. 3&4 at Jamwadi Tal. Gondal, dist. Rajkot | Formaldehyde, Phenol Formaldehyde, Methanol, Melamine Powder. | Old Customer | | Having issue with payment, wants long credit terms. Interested in Downline Products. |
| VISION AMINATE S pvt. ltd | Mr. Aravind Patel (MD) | 9979599504 | Plot No-8 Survey No: 234/1 NH- 8B Opposite Sahyog Cotton, | Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol | Old Customer | | Satisfied customer, thanks to the dedicated sales team of SRPL. |

MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT | 2013

| | | | | | | | |
|--|--|---------------------------|--|---|-----------------|-----------------|--|
| | | | Shapar Rajkot | Formaldehyde, Melamine Powder | | | Very Good client for our company. Interested in downline products. Interested in Job Work. |
| ARDA LYWOOD INDUSTRIE LTD | Mr Uttam Kumar Gupta (Purchase and store dpt) Mr Ajit Kumar (Accounts) | 9427255969 | Rajkot- Gondal Highway, Shapar- 360024 Dist, Rajkot | Formaldehyde Urea Formaldehyde, Melamine Powder | Old Customer | | Satisfied Customer, but wants SRPL to raise its product quality, interested in Downline Products |
| UNJ AMINATE | MR. VINU PATEL (MANAGI NG DIRECTO R) | 9909033361 | HADAMTAL A, OPP BOMBAY HOTEL, GONDAL ROAD (RAJKOT) | Formaldehyde, Urea Formaldehyde, Melamine Powder, Methanol | | New Customer | Wants competent supplier, very interested in trade in Formal and downline products |
| FREE AINATH ECOR LLP (AINATH) | MR. ITESH PATEL (MD AND OWNER) | 9998854310 | HADAMTAL A, NEAR SHYAM GINING , SURVEY NO.52 RAJKOT | Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder | | New Customer | Interested Customer wants to trade with SRPL. He also signed a Purchase Order with SRPL for 1 Tanker. |
| ALAJI AMINATE | Mr. Ramesh Bhai (MD) Mr. Vaju Bhai | 9879186050/ 9925074635 | Survey No. 236. Plot No.8 Opposite Sardar Cement Sitlamata Mandir Road, Shapar | Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder | Old customer | | Problem in Plant and has not done trade in past couple of months. Interested in Downline Products. |
| ood Mica | Mr. Aravind Bhai | 9428154333 | 1, Prime location comple, | Trader | Trader | | Trader, knows about SRPL as |

| | | | | | | | |
|-------------------------|---|----------------|--|---|-----------------|-----------------|--|
| | | | Tagor Road Rajkot | | | | Formaldehyde producer. |
| Formaldehyde Industries | Mr. Shyam Bhatiya (Member of Board of Director) | 9825078810 | 1801-02 , Kishan gate , GIDC Lodhika Metoda, Rajkot | Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder | Old Customer | | Once done business, but was not satisfied. He committed to do business, interested in downline products. |
| Wooden Manufacturer | Mr. Kishan | 0281-2362769 | G-736 , GIDC Lodhika Metoda, Rajkot | Self Made resins Uses Formaldehyde but he did'nt told me, because our price was high. | | New Customer | Uses Formaldehyde denut due to a lot of price difference he said he did'nt use formal. Interested in business if price is suitable to them. |
| SRPL Ply Board Ltd | Mr. Patel Did'nt told his name | 9227429107 | Estate No.3, Malvi Road, udyog nagar. Rajkot | He said he will think of doing business with us. Using resins for Phenol and Urea. | | New Customer | He have'nt heard of SRPL. Interested in business and said he will consult with his business partner. |
| Agency Food Products | Mr. Itesh | 02815526480 | 16 Silver Chamber , Tagore Road Rajkot | Trader | | | He is a Trader and have'nt heard of SRPL. |
| Global Exim Services | Mr. Rajesh Kanani | 91-281-2242506 | 333, STAR CHAMBERS, HARIHAR CHOWK, Rajkot - 360001, Gujarat, India | Producer of Laminates sheet and wide variety of ceramics | | New Customer | Interested in business if price is good. |

MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT | 2013

| | | | | | | | |
|-----------------|--------------------------|-------------------------|---|---|--------------|--------------|---|
| Marpan Aminates | Mr. Amit | 9925360310 | Near Ornato Ceramic, Opposite Ramdev Pir temple, rajpar, Road, shakhat Sanala Morvi | Formaldehyde, Melamine Powder, Methanol. UF& PF is self resin | Old Customer | | Satisfied customer and has no Problem with SRPL. |
| Ionaminates | Mr. Kishan Bhai(MD) | 9879586500 / 9925628927 | MORBI (8-A NATIONAL HIGHWAY, LAKHDHIRPUR ROAD) | Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder | | New customer | He is a big time player and has a very good team. Interested in Trade. To SRPL. |
| Formalaminates | Mr. Anand Patel | 9978999055 / 9879523232 | MORBI (8-A NATIONAL HIGHWAY, LAKHDHIRPUR ROAD) | Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder | Old Customer | | Interested in Downline products and in job work. He is a satisfied customer. |
| Untouchaminates | MR. KAMLES H BHAI (MD) | 9979010842 | Lilapar Road, Navagam Village, Morbi, Rajkot, GJ 363641 | Formaldehyde, Melamine Powder, Methanol, Phenol | Old Customer | | Interested in job work and downline products. |
| Bellaminates | Mr. Kishan | 98984744666 | 8/A , National Highway,, Old Jambudia,, Rajkot, GJ 363342 | Formaldehyde, Melamine Powder, Methanol | Old customer | | The Manager of Bell Laminates did't entertained my questions. The 1 st negative experience. He also questioned the identity of SRPL. |
| Rainbowaminates | MR. AMIT BHAI (PURCHASE | 9925146551 | 8/A Lalpar National Highway | Formaldehyde, Phenol Methanol | Old Customer | | Interested in Downline Products, |

MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT | 2013

| | | | | | | | |
|-------------------|-----------------------|------------|--|--|-----------------|--|--|
| | DEPART MENT) | | | Phenol Formaldehyde, Melamine Powder | | | and in job work. No problem with SRPL. |
| oorva minates | Mr. Kanti Lal | 9825139992 | 8-A, NATIONAL HIGH WAY, NEAR KANDLA- RAJKOT BY PASS, OPP. LAXMINAG AR, Morbi | Formaldehyde, Methanol Phenol Formaldehyde, Melamine Powder | Old Customer | | No problem with SRPL, interested in downline products and wants improved products. |
| ingoli minates | Mr. Manoj | 9879396863 | 8/A Natioanl Highway Lalpar Morbi- 363641 | Formaldehyde, Methanol Phenol Formaldehyde, Melamine Powder | Old Customer | | Waited very long to collect the data. He was not interested in my questions but I convinced him and got the whole data. Interested in job work and downline products. |
| k micraft | Mr. Raju Bhai | 9824301000 | Survey no. 148 Near Satguru Gin Mill .Morbi | Formaldehyde, Melamine powder, Methanol | Old Customer | | Satisfied customer, and has signed a PO recently with SRPL. |
| kalank minates | MR PRAGJI HOTHI | 9825222889 | C/O PATEL KANJI PURSHOTTA M COTTAN MERCHANT, OPP GANDHI GARDEN, MORBI, GUJARAT 36 3641 | Formaldehyde, Melamine powder, Methanol | Old Customer | | Satisfied Customer, has some issue with purity. |

MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT | 2013

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|-----------------------------------|--------------------------|--------------------|--|--|-----------------|-----------------|---|
| Prico minates : ltd. | Mr. Pankaj Patel | 9825224925 | Opp. Old Pipli Village, Jetpur Road, Morbi- 36342 | He quit this business of Laminate Industry. | | | He quit from Business. |
| ison wood Pvt l | Mr. Girdhar Vidhani | 98791 05091 | PLOT NO 54 SEC, 10C LIGHT INDUSTRIES AREA GANDHIDH AM | Formaldehyde, Phenol, Phenol Formaldehyde, Melamine Powder | Old customer | | He does barter trade business from Akleshwar. Interested in downline products. Only done business one time. |
| dhani eners Pvt d | Mr. Jay Vidhani | 91-2836- 232119 | 1 st Floor, Mani Chambers, Opp Multiplex, Gandhidham | Formaldehyde, Phenol, Phenol Formaldehyde, Melamine Powder | | New customer | New customer. Interested in downline products and impressed with Company. |
| illey Ply ustries | Mr. Hitendra Joshi | 09825130544 | Survey No. 89/2 Village Galpadar, Tal. Gandhidham | Formaldehyde, Phenol Formaldehyde, Melamine Powder Urea Formaldehyde(Self Resin) | Old Customer | | Valley Ply is satisfied with SRPL but has some issues with Purity of formaldehyd e. |
| us Tropic imited | Mr. MD Sharma | 9825165482 | Survey No. 636 Galpadar- Anjar Road. Kutch Gujrat. | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder | | New Customer | He is very much interested in doing business with SRPL. Sales team need to contact this purpose. |
| urbanchal minates t Limited | Mr. Kapil Pareek | 9727768508 | Survey No. 340 Vill. Bhimasar, Taluka: Anjar Gandhidham | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, | Old Customer | | He is a big player in Laminates industry. The |

**MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND
MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT**

2013

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|-----------------------------|-------------------------------------|----------------|---|---|--------------|--|--|
| | | | | Melamine Powder | | | company has 4 more companies. |
| MULYA CA | Mr. Kapil Pareek | 9727768508 | Survey No. 340 Vill. Bhimasar, Taluka: Anjar Gandhidham | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder | Old Customer | | |
| MUL DARD PVT TD | Mr. Kapil Pareek | 9727768508 | Survey No. 340 Vill. Bhimasar, Taluka: Anjar Gandhidham | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder | Old Customer | | |
| ANDMAR VENEERS VT LTD | Mr. Kapil Pareek | 9727768508 | Survey No. 340 Vill. Bhimasar, Taluka: Anjar Gandhidham | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder | Old Customer | | |
| JRBANCH L ENEERS | Mr. Kapil Pareek | 9727768508 | Survey No. 340 Vill. Bhimasar, Taluka: Anjar Gandhidham | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder | Old Customer | | |
| Dolby lywood Pvt Ltd | Mr. Rajesh Bhai/ Mr. Navneeth Goyal | 9825207688 | 101, Golden Arcade, Plot No 141/142, Sector - 8, Sector - 1 | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder Methanol | Old Customer | | Interested in job work and downline products of SRPL, also asked for some samples. |
| Euro Decore Pvt Ltd | Mr. Raman Ji | | Suren Rd, Andheri West, Mumbai, Maharashtra | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol | Old Customer | | Interested in downline products. |
| VIKASH INDUSTRIE | Mr. Ashok Jain | 91-2836-224377 | 77/78, NH-8/A Kamakhya Lumberman | Formaldehyde, Urea Formaldehyde, Phenol | Old Customer | | Interested in downline products. |

**MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND
MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT**

2013

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|--------------------------|----------------------|---|--|--|--------------|--------------|---|
| | | | Complex Padana Gandhidham | Formaldehyde, Methanol Melamine. | | | |
| Alora Plywood Pvt Ltd | Mr. Haresh Vidhani | 02837291229, | SURVEY NO 1408/1 N H 8 A, BHACHAU, KUTCHH, KUTCHH 370 485 | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine. | Old Customer | | Interested in Downline products and wants sample. Has some myth that SRPL always have less purity in formaldehyde. |
| Mehta Doco Board Pvt Ltd | Mr. Sandeep Gupta | | Gandhidham survey No. 340. | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine. | | | Interested in downline products and wants sample. |
| Akash Veeners Pvt Ltd | Mr. Arvind Bhai | | Gandhidham | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine. | | | Wants to improve quality of formaldehyde. Wants sample of melamine powder. |
| Shubh Ply and Veeners | Mr. Kamal Lalwani | +9198252257 68 | PLOT NO. 277, FIRST FLOOR, SECTOR 1 A, Gandhidham - 370201, Gujarat, India | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine. | | | Satisfied with company. Wants more competent price and discount. |
| Gayatri Ply Industries | Mr. Ravji bhai Patel | (02836) 222787 (Office) 247111 (Factor y) | Goldcoin Complex, Office No. | Formaldehyde They generally used Self mage resins. | | New customer | Interested In Formaldehyde but the price was high so he did't showed interest in telling me the data. |

MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT | 2013

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|------------------------------|---|----------------------|---|--|-----------------|---------------------|--|
| tyatri neers Pvt. d. | Mr. Ravjibhai Patel | 09426214933 | 2 nd Floor, Plot No. 321 ward 12-B Gandhidham | Formaldehyde Melamine powder, UF/PF | | NEW | New customer will come after 1 year in market. |
| ir Plywood t Ltd | Mr. Kishan (Purchase) | Tel. 2836 2277 33 | 108, Anam Complex , Plot no.37 Gandhidham | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine. | | New customer | He is good customer but did'nt able to meet the MD as he was very busy. But purchase department showed interest in Formaldehy de and downline products and Liked to know about SRPL. Purchase department said they will be interested in trade. |
| SM ywood | Mr Sumit Bhai Did'nt told his designation | 02836- 299627 | Survey NO.330, Bhimasar,Gdh am, Gandhidham HO, GANDHIDH AM | Formaldehyde | | New CUSTOM ER | Contacted through phone, told me to come after wards. Interested in Business. |
| egancy ood roducts | Mr. Naresh | 02815526480 | 16 Silver Chamber, Tagor Road Rajkot | He is a trader | | | Trader |
| ebecca aminates ompany | Mr. Jinesh Patel | 9712962848 | No.8-A , NH near Shokhlea Bus stop, Bahadurgarh Morbi | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine. | Old Customer | | He is satisfied with SRPL, interested in downline products. |

MARKET ASSESSMENT OF FORMALDEHYDE, UREA FORMALDEHYDE AND MELAMINE POWDER IN DIFFERENT INDUSTRIES IN GUJARAT | 2013

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|------------------|----------------------|-------------|---------------------------------------|---|--|--|---|
| rolam minates | MR. AMRIT (MD) | 9979010842 | Lilapar Road at navagam Village | Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine | Old customer and subsidiary of Samarpan | | Satisfied customer, interested in downline products. |
| Mehta /wood | Mr Hardik Mehta | 89809 98888 | Zanda Chowk Gandhidham | Trader | Trader | | Trader, he was impressed with SRPL after knowing it. |

| | |
|---|----|
| Total No. of customer contacted | 54 |
| Total no. of joint calls | No |
| Total no. of telephonic calls | 12 |
| Total no of customers contacted personally | 42 |
| Total no. of repeated calls | 5 |
| Average calls per day | 3 |
| Total no. of new clients contacted | 14 |
| Total no. of Existing clients contacted | 40 |
| Total no of customers identified product wise | 40 |
| No. of clients who gave details | 40 |
| No. Of Days Worked in Field | 23 |

A Brief about Our Work

| | |
|------------------------------|----|
| No. Of Days Worked in Office | 22 |
| No. Of Holidays | 16 |
| Individual work | 35 |
| No. of Reports Submitted | 16 |
| Working Days Available | 39 |
| No. of days taken Leave | 07 |

CONCLUSION OF WORK

| GRADE A | GRADE B | GRADE C |
|---------------------|-----------------------------|-------------------------|
| Interested in Trade | Approachable and Interested | Not Interested in Trade |

| | | |
|---|---|--|
| Shree Sai Nath Laminates (Sainath) (Formaldehyde, UF/PF, Melamine Powder, Methanol.) | Gayatri Ply Industries (Formaldehyde They generally used Self mage resins) | Mehta Plywood (Trader) |
| Kunj Laminates (Formaldehyde, Urea Formaldehyde, Melamine Powder, Methanol) | Gayatri Veneers Pvt. Ltd. (Formaldehyde Melamine powder, UF/PF) | Regancy Wood Products (Trader) |
| Color Lam Industry (Formaldehyde Methanol Urea –Formaldehyde Phenol Formaldehyde Methanol) | Lalson Plywood Pvt Ltd (Formaldehyde, Phenol, Phenol Formaldehyde, Melamine Powder) | Merico Laminates Pvt ltd. (Not Interested in doing business with SRPL) |
| VA Industries (Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder) | | Wood Mica |
| Vishal Industries (Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde, Melamine Powder) | | |
| Margo Ply and Board Pvt Ltd | | |

| | | |
|--|--|--|
| (Formaldehyde, Urea Formaldehyde, Phenol Methanol Phenol Formaldehyde) | | |
| Global Exim Services (Formaldehyde, Melamine Powder) | | |
| Indus Tropic Limited (Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder) | | |
| Riona Laminates (Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder) | | |
| Ahir Plywood Pvt Ltd (Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine) | | |
| GSM Plywood (Formaldehyde) | | |
| Vidhani Veeners Pvt Ltd (Formaldehyde, Phenol, Phenol Formaldehyde, Melamine Powder) | | |
| Raj wooden Manufacturer (Formaldehyde) Self made resin, Requires Methanol | | |
| J M INDUSTRIES (Melamine Powder, Urea and | | |

| | | |
|---|--|--|
| Phenol Formaldehyde) | | |
| Purbanchal Laminates Pvt Limited (Melamine Powder, Urea and Phenol Formaldehyde) | | |
| AMULYA MICA (Melamine Power, UF & PF) | | |
| AMUL BOARD PVT LTD (Melamine Powder) | | |
| LANDMARK VENEERS PVT LTD (Melamine Powder, Urea and Phenol Formaldehyde) | | |
| PURBANCHAL VENEERS (Melamine Powder, UF and PF) | | |
| Euro Decore Pvt Ltd (Urea Formaldehyde, Phenol Formaldehyde, Methanol, Melamine Powder) | | |
| VIKASH INDUSTRIES (Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine) | | |
| Valley Ply Industries (Phenol Formaldehyde, Melamine Powder Urea Formaldehyde(Self Resin) Also wants Methanol at economic price. | | |
| Rebecca Laminates Company (Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine) | | |
| Nerolam Laminates (Urea Formaldehyde, Phenol Formaldehyde, Methanol, Melamine Powder) | | |

| | | |
|---|--|--|
| Shubh Ply and Veneers (Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine) | | |
| Akash Veneers Pvt Ltd (Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine) | | |
| Mehta Doco Board Pvt Ltd (Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine) | | |
| Alora Plywood Pvt Ltd (Urea Formaldehyde, Phenol Formaldehyde, Methanol Melamine) | | |
| Dolby Plywood Pvt Ltd (Urea Formaldehyde, Phenol Formaldehyde, Melamine Powder Methanol) | | |
| Euro Decore Pvt Ltd (Urea/ Phenol Formaldehyde) | | |
| Nakalank Laminates (Melamine Powder, Methanol) | | |
| Rangoli Laminates (Phenol Formaldehyde, Methanol, Melamine Powder) | | |
| Apoorva Laminates (Methanol Phenol Formaldehyde, Melamine Powder) | | |
| Rainbow Laminates (Phenol Formaldehyde, Methanol, Melamine Powder) | | |
| Bell Laminates (Phenol and Urea Formaldehyde, Melamine Powder, Methanol) | | |

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|--|--|--|
| Suntouch Laminates (Melamine powder, Phenol and Urea Formaldehyde, Methanol) | | |
| Monal Laminates (Urea/ Phenol Formaldehyde, Melamine Powder , Methanol) | | |
| Balaji Laminates (Urea/ Phenol Formaldehyde, Melamine Powder, Methanol) | | |
| SARDA PLYWOOD INDUSTRIES LTD (Urea/ Phenol Formaldehyde, Melamine Powder, Methanol) | | |
| VISION LAMINATES pvt. ltd (Urea/ Phenol Formaldehyde, Methanol , Melamine Powder) | | |
| MAHADEV LAMINATES PVT. LTD (Phenol Formaldehyde, Methanol, Melamine Powder) | | |
| LITTLE MAN PRODUCT (Urea Formaldehyde, Melamine powder) | | |
| HARMONY LAMINATES PVT.LTD (UF/PF, Melamine) | | |
| Home Mica Advance Laminates (Urea/ Phenol formaldehyde, Melamine Powder, Methanol) | | |
| DECORA LAMINATES (Urea/ Phenol Formaldehyde, Methanol, Melamine Powder) | | |

CHAPTER 13: FINDING AND CONCLUSION

FINDINGS

PROBLEM ENCOUNTERED DURING INDUSTRY VISIT.

During the market assessment of Formaldehyde, Urea Formaldehyde, Phenol Formaldehyde, Methanol, Melamine powder some issues were encountered:

- Purity
- Incompetent Rates
- Timely delivery
- Freight Charges
- Payment Period
- Brand name (Promotional strategy)

SUGGESTIONS

1. Purity check

Formaldehyde when delivered to industrial customer should be checked for purity by third common purity check party. This will be acceptable to both the party.

2. Freight charges issue

To avoid Freight charges Issue Company can set up small storage facility at far vicinity places, this will also ensure very low product loss and maintains purity.

3. Incompetent rates

Some customer's complaints about the incompetent rates of formaldehyde which SRPL delivers to them, whereas they liked Semalin and Balaji offered prices.

4. Delivery issue

Industrial customer's complaint that there is some problem with timely delivery of formaldehyde, they questioned the commitment of organization and also was not satisfied with the uneven plant shut down, taken by SRPL as a market strategy.

5. Payment Period

Many industrial customers required long credit days as they also face problem in arranging cash from market.

We can provide formaldehyde to our customer's at best competent price and at very slight low price and we can reduce the payment period. Generally it is seen that when

customers are provided best competent prices they ask for discount and deliver the payment to us in week.

6. Promotional Strategy

During the visit in many customers told that they don't know anything about SHREENATHJI RASAYAN. Company should promote and conduct seminars focusing industrial customers, textile and pharmaceuticals industries.

Conclusion

KANDLA FORMALIN LIMITED is having latest formaldehyde manufacturing technology among other formaldehyde manufacturers. The plant is situated at the heart of Gujarat and has the potential to cover overall Gujarat customers. We are emerging as one the best Petrochemical manufacturers in India and have the potential to go beyond.

We should build the best Petrochemical complex to fulfill the growing needs of the customers all around the world.

According to the Market analysis during the internship we analyze that there is some quality issue of formaldehyde for Shreenathji Rasayan which is the sole product for company. Customers are complaining that the purity of formalin is not acceptable which Shreenathji Rasayan deliver to them.

There is some coordination problem in company to as most of the staff of Kandla Formalin limited have been shifted from Kandla Energies and Corporation limited (KECL) the mother company, as this problem will solve with coming time. Kandla Formalin limited came into picture by overtaking Shreenathji Rasayan Private Limited owned by Late Mr. Promod Jhah (Md of Shreenath ji Rasayan) and Mr. Nachiketan Jhah (Son of Mr. Promod Jhah) as company was going under financial crisis and unable to operate well Mr. Sanjay Rai Acquire Shreenathji Rasayan and help it covered all financial loses.

In the coming years the formaldehyde which is sold under the brand name of Shreenathji Rasayan Private Limited will change to Kandla Formalin Limited and by 2020 Kandla Formalin is planning to Recruit 10,000 (Ten thousand) Employees.

According to the market Analysis during the internship it was found that Formaldehyde produce by Kandla Formalin limited (Shreenathji Rasayan Private Limited) is facing problem in market due to credit days, as KFL competitors (Balaji , Semalin chemicals, Ankleshwar) gives long credit days .i.e. payment can be done after 90 to 100 days.

The business of Formaldehyde manufacturer is similar to every company in the market that is they share same traditional procedure for formaldehyde manufacturing: Silver based catalyst. Almost same product

The only factor that separate big players from small players in this industry is distance from manufacturing plant (Source) to industrial customer (destination) or Freight charge.

Freight charge is the cost incurred by the customer according to distance from Plant Manufacturing Formaldehyde to Industrial customer destination. Freight charge is one the main factor that increases the price of the product in the market, though it helps manufacturing company earn money but it also has negative impact, as it increases the price of your product making your product less competitive in market. As the disadvantage is more than advantage so the distance factor plays a major role.

Company need to focus on small industrial customers whose monthly consumption is very less. Generally formaldehyde manufacturer do not entertain small customers, but these small customers do provide many opportunities. The solution for this problem is to establish a Trader, Agent or a third party who acts as a mediator and will distribute the formaldehyde among the small industrial customers. The Agent or Trader is answerable to company.

Kandla Formalin Limited (Shreenathji Rasayan private limited) has around 70 clients with whom they trade. During our internship the main focus of company on us was to increase this client list and to resolve customer problems. In the business of Formaldehyde manufacturing the companies are not able to grab huge profits as there are many other competitors and the product "Formaldehyde" is almost same, Kandla Formalin Limited is focusing on down line products such as: Melamine Powder, Methanol, Urea Formaldehyde, and Phenol Formaldehyde which are huge profit earning products.

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