Deepak Nitrite_Deep-Dive_vF

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Q#1 What is the history of the company and management?

Deepak Nitrite Ltd. (DNL) is a chemical company, which was founded in 1970 by C.K. Mehta and is owned by the Mehta family.
DNL actually started as a chemical-trading company, and eventually moved up the ladder by setting up a plant for Sodium Nitrate.

Current CEO Maulik Mehta replaced Umesh Asaikar (who was the CEO for 12 years and retired in Mar'20).
CFO, Sanjay Upadhyay has been with the company since 1994.
Maulik Mehta is son of the Chairman & MD of DNL, Deepak Mehta (son of C.K. Mehta) and Deepak Mehta is a technocrat, having a background in chemicals.

DNL caters to 700+ customer in 6 continents with more than 30 products

As stated in the annual report, company's vision is "To become the fastest growing Indian chemical intermediates company… has a vision of expanding its footprint in high-value intermediates to capitalize and sustain its growth trajectory driven by several levers and strategic initiatives on the right path."

It is spread across 4 main segments:
A) Basic Chemicals
B) Fine & Specialty Chemicals (FSC)
C) Performance Products
D) Phenolics

The company has 6 plants spread across 5 locations in 3 states:

No.	Location	Use	Comments
1.	Nandesari (Gujarat)	• Basic Chemicals, Fine & Specialty Chemicals	The first and flagship manufacturing facility
	Taloja (Maharashtra)	• Synthetic Organic Chemicals • Fine and Specialty Chemicals	Strategically connected to Nhava Sheva port
3.	Roha (Maharashtra)	• Intermediates for Agrochemicals, Dyes and Specialty Chemicals	
4.	Hyderabad (Telangana)	• Optical Brightening intermediates • DASDA	
5.	Dahej - DNL (Gujarat)	• Basic Chemicals • Performance Products	
6.	Dahej - DPL (Gujarat)	• Phenol • Acetone • IPA	

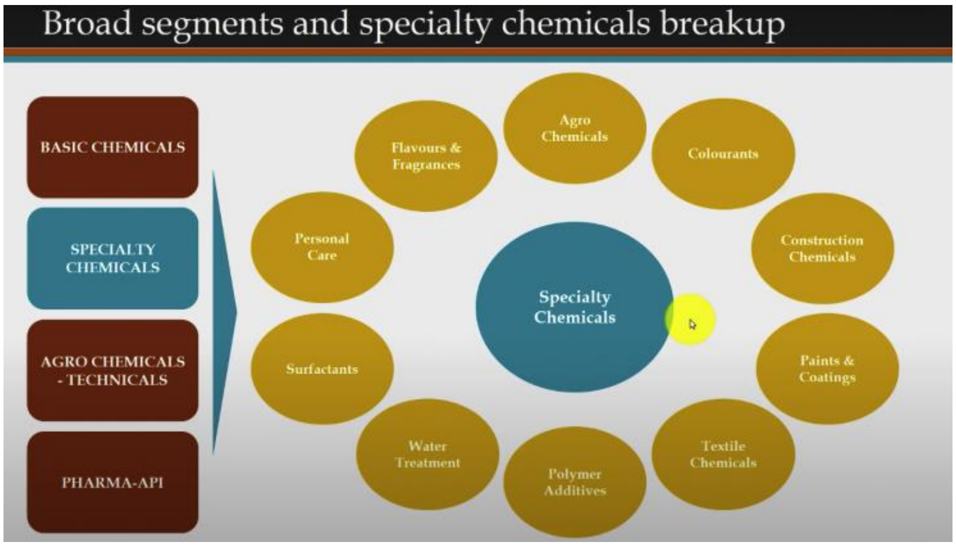
From FY15 to FY20, sales have grown more than 3x, whereas profits have grown ~12x and the market has also rewarded the stockvery well, especially in the past 1-2 years as can be seen from the stock price CAGR below

Stock Price CAGR	
10 Years:	52%
5 Years:	82%
3 Years:	70%
1 Year:	162%

The serious jump in revenues from FY19 to FY20 is because of the newly-launched Phenolics segment, which is operated by DNL's wholly-owned subsidiary, Deepak Phenolics Limited

Consolidated Figures in Rs. Crores / View Standalone

	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	TTM
Sales +	1,327	1,373	1,371	1,651	2,700	4,230	3,952
Expenses +	1,188	1,205	1,233	1,447	2,279	3,195	2,898
Operating Profit	**139**	**168**	**138**	**204**	**421**	**1,035**	**1,054**
OPM %	10%	12%	10%	12%	16%	24%	27%
Other Income	2	0	81	7	11	29	18
Interest	38	40	37	47	87	118	87
Depreciation	36	40	48	53	78	140	132
Profit before tax	**67**	**89**	**135**	**111**	**268**	**806**	**853**
Tax %	21%	29%	28%	29%	35%	24%	
Net Profit	**53**	**63**	**96**	**79**	**174**	**611**	**658**
EPS in Rs	5.06	5.39	7.37	5.79	12.73	44.80	48.24
Dividend Payout %	20%	22%	16%	22%	16%	10%	



High level view of "Specialty chemicals"
Source: Vivek Mashrani presentation

Q#2 Is the company's business model understandable? How does it make money?

DNL is a B2B business and basically has 4 lines of businesses across 3 wholly-owned subsidiaries:

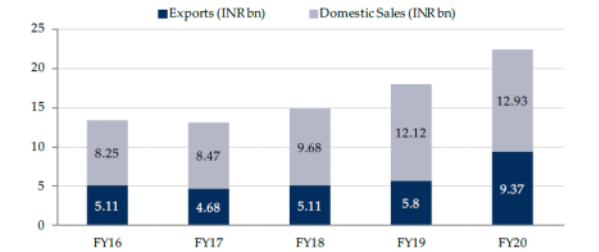
1. Deepak Phenolics- For manufacturing of Phenol and Acetone
2. Deepak Nitrite Corporation Inc. USA- To cater to the marketing requirements in Americas region
   Has negligible revenue
3. Deepak Clean Tech Ltd- Incorporated in Oct'20 to carry out manufacturing of chemical intermediate products

DNL is fairly diversified company, in terms of the number of products it sells, the different industries it caters to and also, no customer contributes more than 7% to total revenues (source: HDFC report).
It sells its products to big companies in various industries like Pharma, Paints, Agrochem, Paper etc. and customers include Bayer, Henkel, Atul, Reliance, amongst others

Most of the products are **contracted with pass through clauses** enabling the company to be remunerated for its value addition while minimizing adverse impact from raw material fluctuation.

Deepak Nitrite also has exposure to foreign markets, with 35-40% of total revenue being exports (excluding DPL) and ~25% of consolidated revenues in FY20
The below figure does not include Phenolics segment

Exhibit-24: Geographical sales mix



Source: Company, HSIE Research

The revenue and EBIT mix for its business lines are as follows:

Consolidated sales (Cr.)	FY16	FY17	FY18	FY19	FY20
Phenolics			196	908	2001
as % of total			*12%*	*34%*	*47%*
Basic Chemicals	675	696	762	893	940
as % of total	*49%*	*51%*	*46%*	*33%*	*22%*
Performance Products	274	265	300	403	767
as % of total	*20%*	*19%*	*18%*	*15%*	*18%*
Fine & Specialty Chemicals	393	375	463	536	585
as % of total	*29%*	*27%*	*28%*	*20%*	*14%*
Total Revenue	**1373**	**1371**	**1651**	**2700**	**4230**

Consolidated EBIT (Cr.)	FY16	FY17	FY18	FY19	FY20
Phenolics			-6	96	187
as % of total			*-3%*	*21%*	*19%*
Basic Chemicals	80	88	107	145	209
as % of total	*48%*	*58%*	*51%*	*32%*	*21%*
Performance Products	-9	-18	-8	83	419
as % of total	*-5%*	*-12%*	*-4%*	*18%*	*42%*
Fine & Specialty Chemicals	97	82	115	127	175
as % of total	*58%*	*54%*	*55%*	*28%*	*18%*
Total	**168**	**152**	**208**	**451**	**990**

EBIT Margins %	FY16	FY17	FY18	FY19	FY20
Phenolics			-3%	11%	9%
Basic Chemicals	12%	13%	14%	16%	22%
Performance Products	-3%	-7%	-3%	21%	55%
Fine & Specialty Chemicals	25%	22%	25%	24%	30%

Expected EBIT Margins for the segments based on historical numbers and management guidance (barring FY20 since it was an exceptional year) are as follows:

1. Phenolics ~10%
   While Phenolics contributes majority of revenues, the profit contribution is less because it is a commodity product. The expe ctation with Phenolics is moving downstream to specialized derivatives of Phenol, which are tougher to make and fetch higher prices in the market
   Management has guided for a 15% margin in this segment (has proven to be true for FY21 numbers) and further increase in margi ns will come from specialized derivatives of Phenol

2. Basic Chemicals ~15-20%
   For basic chemicals, the % contribution to profits is reducing because of other segment lines growing

3. Performance Products ~15-20%
   Performance Products had an exceptional few quarters (and unsustainable) in FY19,20 due to supply shortage of OBA

4. FSC 20-25%
   FSC, being a high margin product has more contribution to the bottom line than the top line and is expected to be a significa nt growth driver
   Management has guided for 40-45% sustainable margins in this segment in the long term (which is visible from Q1,Q2,Q3 FY21 numbers)

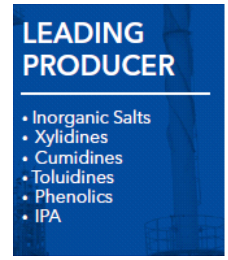
FY21 update for 3 quarters:

1. Phenolics margins improved slightly and due to lack of domestic demand, management has started exporting it, which has kept t he capacity utilization at 100% (from 8% export, it went up to 25% phenol export in q1 fy21)
2. Basic chemicals is more or less the same
3. PP has fallen drastically (from the highs of ~50% in FY20), which was predictable since the prices of DASDA increased artific ially from $4000/ton to $12000/ton due to the closure of capacity of Lion Chemicals (a leading player)
4. FSC margins have improved ~40-45%

Source: Annual Report

DIVERSIFIED PRODUCT **PORTFOLIO**

Business Segment	Basic Chemicals	Fine & Speciality Chemicals	Performance Products	Phenolics
Products	Sodium Nitrite Sodium Nitrate Nitro Toluidines Fuel Additives Nitrosyl Sulphuric Acid	Xylidines Oximes Cumidines Speciality agrochemicals	Optical Brightening Agent (OBA) DASDA	Phenol Acetone Cumene Isopropyl alcohol
Application Diversity	Colourants Petrochemicals Rubber	Agrochemicals Colors & Pigments Paper Personal Care Pharmaceuticals	Paper Detergents Textiles Coating Applications in Printing & Photographic Paper	Laminate & Plywood Pharmaceuticals Adhesives Sanitizers Rubber Chemicals Paints



Let's talk about the 4 lines of business in detail:

1. **Basic Chemicals/Commodities**

- As the name states, these are "basic" chemicals, which are easy to make commodity products and are supplied in high volumes to clients.
- DNL manufactures these chemicals as per standard specifications, with better quality through process excellence across product offerings.
- Strategy for this segment is to focus on **cost leadership**
- Some of the products in this category where DNL has leadership include sodium nitrite/nitrate (80% market share), fuel additives (75% market share), nitro toluene (50% market share) and applications are found in textile, oil, fuel additives etc.
- Growth in this segment is expected to be modest since most major products already have majority market share

Basic Chemicals	FY16	FY17	FY18	FY19	FY20
Revenue	674	696	761	893	940
EBIT	79	88	106	145	209
EBIT Margins	12%	13%	14%	16%	22%

Margins are expanding mainly due to cost efficiency measures, strong R&D, market leadership and china plus one factor

*China plus one factor is basically diversification of supply chains/factories away from China to another beneficiary (like India)

2. **Fine & Specialty Chemicals**

- The Fine and Specialty Chemicals (FSC) segment includes niche products that require greater value addition.
- Manufactures Specialty Agrochemicals, Xylidines, Oximes and Cumidines primarily used as intermediates in colorants, pigment, fuel additives, agrochemicals, personal care and pharma intermediaries.
- These products are manufactured in low volumes and enjoy higher value as they are customized to specific customer requirements.
- Due to the differentiation from standardized products, the focus is based on quality of product, long-term relationships, stable and sustainable operations
- Strategy in this segment is to move to **high-value products along with forward and backward integration** to drive growth and profitability

FSC	FY16	FY17	FY18	FY19	FY20
Revenue	393	375	463	535	585
EBIT	97	82	115	126	175
Margins	25%	22%	25%	24%	30%

- Showed de-growth in FY17 due to a fire incident at its plant in Roha

3. **Performance Products**

a) DASDA (Diamino Stilbene Disulfonic Acid)
b) Optical Brightening Agent (OBA) aka FWA (Fluorescent Whitening Agent) aka Optical Whitening Agent

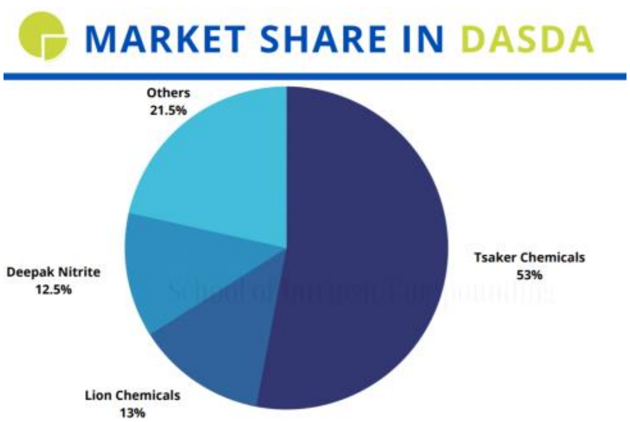
- Till 2006, the company only produced Nitrotoluene and PNT (Para Nitritoluene).
  In 2011, DNL acquired Basant chemicals for DASDA and then further forward integrated to OBA
- "Performance" products require a technical expertise
- **Fluorescent Whitening Agent are brighteners**, commonly used in **industries like paper, detergents, textiles, coating** applications in printing and photographic paper. These products are offered to the customers as per their desired specification across liquid, solid and powdered forms.
- DASDA is an intermediate in the manufacturing of OBA and dyestuffs
- DNL is the **only fully-integrated manufacturer of FWA** having **vertical integration** from **Toluene -> PNT -> DASDA -> OBA** although it is still a price-taker
- DNL customizes the raw material at each stage depending upon the customer specification resulting in superior quality and enhanced profitability compared to other players that are dependent on suppliers for raw materials.
- **Globally recognized certifications and customer approvals act as entry barriers**

- In FY18, DNL **catered to 75% of the domestic requirement of brighteners and expanded its footprint internationally too**

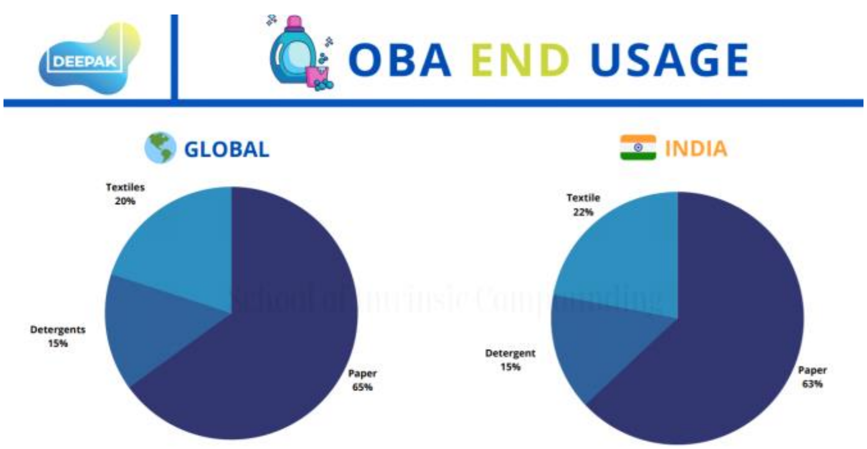
PP	FY16	FY17	FY18	FY19	FY20
Revenue	273	264	300	402	767
EBIT	-9	-18	-8	83	418
Margins	-3%	-7%	-3%	21%	55%

- This segment, which was loss making, finally turned around in FY18
- FY20 showed artificially super growth due to China's disruptions and realizations for DASDA increased 3x (which the management also pointed out is not sustainable)
- At the end of the day, this also seems like a commodity business (q2,q3 fy21 the margins have been falling because paper and textile industries are the major use cases and are undergoing a slowdown)
- OBA contributes 35-40% in exports

Value chain for OBA
DNL is the only fully-integrated player in the world



Global picture
Source: SOIC



4. **Phenolics**

- This segment of the business is under DNL's 100% owned subsidiary, Deepak Phenolics, which started in Nov'18 at a 60-acre plant in Dahej, Gujarat
- Technology for Phenol and Acetone has been sourced from **Kellogg, Brown & Root International, Inc** and technology for Cumene has been sourced from **UOP Honeywell**.
Globally, more than 60% of Phenol projects have used technology from these two giants

- Products are as follows: Phenol, Acetone, Cumene, IPA (Isopropyl Alcohol, started in Q1 FY21 due to covid)
(60% acetone demand is from Pharma space)

- Rationale for entering into this category was "import substitution" for Phenol and Acetone as India has huge demand for these chemicals but these were mostly imported.
- **Future strategy in this category is to move to more value-added downstream (or forward integrating) products for phenol and acetone and this segment is expected to be a major growth driver for Deepak Nitrite**
- In FY19, DNL was successful in manufacturing and selling pharma grade acetone . The plant stabilised in a short span of 5 months, achieved 100% utilization and reported positive EBITDA (big achievement)
- At full capacity, the plant can generate 2000-2200 cr revenue
- In FY20, the company reported that for phenol and acetone, the domestic market share reached ~65% (again, the result of import substitution)
- The company spent ~1400cr in capex for setting up the facilities over a period of 4 years (the project is pretty big as before this capex, the company had fixed assets ~500cr only. Also, this was funded by debt to equity ratio of 60:40, where QIP was done for equity and debt is a 20-year loan repayment starting from 2020)
- The company aspires to consume 40% phenol internally for derivatives in coming years

- The company also has anti-dumping duty for Acetone from several places like South Africa
- Deepak's phenolics have advantages for their clients (in the form of import substitution) like savings on transportation costs, savings on working capital and reduces issues arising out of spot vs contractual pricing
- The capacities are as follows:
  a) Phenol-> 2,00,000 TPA
  b) Acetone-> 1,20,000 TPA
  c) Cumene-> 2,60,000 TPA
  TPA stands for tonnes per annum

- DPL has **appointed distributors across India for selling and distributing Phenol and Acetone**. It also has **tied up transportation and other logistics requirements,** which is one of the key requirements for handling such a large volume of moving inbound and outbound materials.

Demand for IPA in India ~200k TPA. Deepak Fertilisers and Petrochemicals Corporation were the only manufacturer of IPA in India with an installed capacity of 70ktpa before Deepak Nitrite came in

Source: SOIC

Basic Chemicals and Phenolics are cyclical in nature whereas FSC is not and Performance Products (OBA) is probably somewhere in between

More about Phenol and Acetone
Phenol serves as a major **building block for the infrastructure industry including housing, roads, construction as well as for wind mills, automobiles**, etc.

Aim of the company is to use these **phenol products to turn them into specialty chemicals** for perfumeries, plastics and decorative laminates.

A major contribution from the phenol segment would be in offering a range of solvents for the pharma industry, thus strengthening its relationship with pharma industry in India.

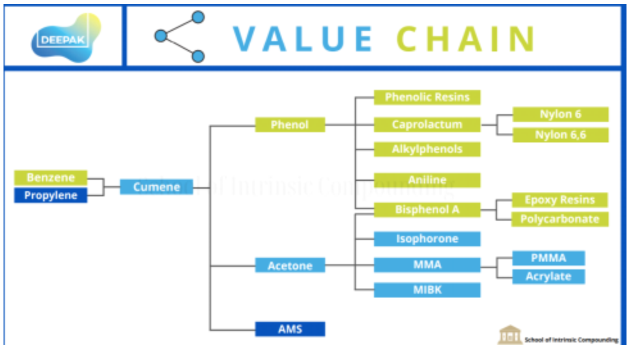
Phenol consumed in India increased at a CAGR of about 7% from FY11-16

This consumption was largely driven by the **phenolic resins industry**, which **accounts for 76% of Phenol consumed in India** growing at 7-8% CAGR over the last 5 years on the back of rising automobile sales in the domestic market as well as a healthy rise in exports. The plywood and laminates industry has also grown at a rapid pace with the growth of the underlying construction and housing industry.

Source: SOIC

Acetone finds applications in pharma, paints, adhesives & thinners, acrylic sheets

Acetone demand in India is slated to grow at a faster CAGR of 5-7% between FY16 to FY21 This does not include imports downstream like BPA, MMA, etc.

- 

Source: SOIC

Business activities contributing 10% or more of the total turnover of the Company:-

Sr. No.	Name and Description of main Products/Services	NIC Code of the Product/Service	% to Total Turnover of the Company
1.	4-4 Amino Stilbene 2-2 Disulphonic Acid	24121	19%
2.	Optical Brightening Agent	24121	16%
3.	Nitro Toluene	24121	14%
4.	Sodium Nitrite	24121	13%

Source: Annual Report

Q#3 Is the company profitable?

	FY16	FY17	FY18	FY19	FY20
ROE	15%	11%	10%	17%	46%
ROCE	14%	8%	10%	17%	38%

Return ratios have been constantly improving for DNL in the past few years
Numbers taken from screener

Where ROCE = (EBIT/Capital Employed), where Capital Employed = (Total Assets - Current Liabilities)
ROE = (Net Income/Avg. equity last 2 years)

Since cost of capital is ~12-13%, the company is profitable as ROCE > cost of equity
(returns seem subdued because of the huge capex undergoing the past few years)

In case of DNL, the competitive advantage is being the low cost producer, having good customer relations (company being in existence for 50 years), strong brand (ability to pass the cost of RM increase)

Q#4 Are the company's terms of trade favorable?

Inventory Days	33	45	72	57	35
Debtor Days	83	96	91	78	53
Creditor Days	35	57	108	64	31
Cash Conversion Cycle	81	84	55	70	56
Working Capital/Sales	21%	28%	20%	19%	16%

Cash conversion is cycle is getting lower, which is good for the company
Less working capital is tied in the previous few years
Some cash will always be tied up in working capital (because of debtor days being more)
since exports form a decent amount of total revenues

Q#5 What is the company's cost and margin structure? How has it changed in the past?

Most other costs (Except change in inventory) have been controlled/declined, due to which OPM have been stable (barring FY19)

Rs Cr	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20
Sales	100%	100%	100%	100%	100%
Raw Material Cost	61%	62%	61%	66%	55%
Change in Inventory	0%	2%	-1%	6%	-1%
Power and Fuel	9%	7%	7%	8%	7%
Other Mfr. Exp	4%	5%	5%	4%	3%
Employee Cost	9%	9%	8%	7%	5%
Selling and Admin Cost	4%	6%	5%	4%	4%
Other Expenses	2%	2%	2%	2%	1%
Operating Profit	11%	6%	14%	4%	26%

Other Income	0%	6%	0%	0%	1%
Depreciation	3%	4%	3%	3%	3%
Interest	3%	3%	3%	3%	3%
Profit Before Tax	6%	10%	7%	10%	19%
Tax	2%	3%	2%	3%	5%
Net Profit	5%	7%	5%	6%	14%
Dividend Amount	1%	1%	1%	1%	1%

Q#6 How's the Du Pont Analysis for the company?

DuPont Analysis	FY16	FY17	FY18	FY19	FY20	Comments
Net Profit Margin	4.57%	7.03%	4.78%	6.43%	14.45%	Comparable to peers
Asset Turnover	1.6	1.5	1.7	1.7	1.8	Comparable to peers
ROA	7.31%	10.55%	8.13%	10.93%	26.01%	
Financial Leverage	2.1	1.1	1.2	1.6	1.8	DNL has been expanding aggressively, might face problems in case of a downturn
ROE	15%	11%	10%	17%	46%	Overall trend of ROEs looks pretty good

ROA = Net Profit Margin * Asset Turnover (ROA basically measures returns without leverage)
Net Profit Margin = (Net Profit/Revenue)
Asset Turnover or Asset Turns = (Revenue/Total Assets), basically how much revenue company generates by adding 1rs of assets
Financial Leverage = (Total Assets/Equity)
ROE = ROA * Financial Leverage = (Net Profit/ Equity)

To further make sense of these figures, here's a peer analysis

Peer Analysis			**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	
Fixed Asset Turnover	**Deepak Nitrite**		**2**	**2**	**3**	**2**	**2**	
	Aarti Industries		2	2	2	2	2	Comparable to peers
	Vinati Organics		2	1	2	2	1	
	Atul		3	3	3	4	4	
ROCE %	**Deepak Nitrite**		**14%**	**8%**	**10%**	**17%**	**38%**	
	Aarti Industries		21%	20%	17%	18%	16%	
	Vinati Organics		36%	33%	28%	46%	36%	DNL has done a good job of catching up to peers here
	Atul		26%	23%	19%	27%	28%	
OPM %	**Deepak Nitrite**		**12%**	**10%**	**12%**	**16%**	**24%**	
	Aarti Industries		19%	21%	18%	23%	23%	Comparable to peers
	Vinati Organics		33%	34%	27%	38%	40%	Although each of these companies is into different products, so margins might not be an appropriate comparison
	Atul		18%	18%	14%	19%	22%	
Inventory Turnover	**Deepak Nitrite**		**8.19**	**6.34**	**4.57**	**4.9**	**6.4**	
	Aarti Industries		3.39	3.09	3.06	2.58	2.34	
	Vinati Organics		6.61	6.15	5.78	6.66	5.19	Comparable to peers
	Atul		3.79	4.15	5.18	5.43	4.62	
Debtor Days	**Deepak Nitrite**		**83**	**96**	**91**	**78**	**53**	
	Aarti Industries		64	61	63	68	66	
	Vinati Organics		66	80	89	79	72	Comparable to peers
	Atul		62	67	75	63	64	
Debt to Equity	Deepak Nitrite		**1**	**1**	**1**	**1**	**1**	
	Vinati Organics		0	0	0	0	0	
	Atul		0	0	0	0	0	Vinati and Atul are debt-free companies Debt to equity for Deepak Nitrite was around 0.7 at the end of FY20, which is a little risky
	Aarti Industries		1	1	1	1	1	
Fixed Asset Turnover	Deepak Nitrite		**2**	**2**	**3**	**2**	**2**	
	Vinati Organics		2	1	2	2	1	
	Atul		3	3	3	4	4	Comparable to peers Atul is sweating its assets the best
	Aarti Industries		2	2	2	2	2	

Source: Screener.in

	Aarti Industries		2	2	2	2	2

Atul is sweating its assets the best

Source: Screener.in

Peer comparison

Add company eg. ABC Limited

	Deepak Nitrite Ltd	Vinati Organics Ltd	Atul Ltd	Aarti Industries Ltd
Market Cap	20658.77	14611.50	19919.48	21896.92
Current Price	1514.65	1421.60	6732.50	1256.75
High / Low	₹ 1,692 / 310	₹ 1,528 / 651	₹ 7,021 / 2,923	₹ 1,366 / 662
Stock P/E	31.40	53.50	32.03	43.99
Book Value	134.93	137.03	1199.03	184.25
Dividend Yield	0.30	0.39	0.22	0.28
ROCE	37.69	36.39	27.98	15.68
ROE	46.57	28.52	22.44	18.88
Face Value	2.00	1.00	10.00	5.00
Sales growth 5Years	26.09	5.92	9.19	7.69
Profit growth 5Years	63.32	23.43	22.42	21.41
Average return on equity 5Years	23.78	26.26	18.44	22.05
Return on assets	24.74	28.38	21.48	9.78
Return on invested capital	27.61	31.00	36.54	15.73
PEG Ratio	0.50	2.28	1.43	2.05
Price to book value	11.23	10.37	5.61	6.82
EVEBITDA	19.88	37.40	20.18	25.29
Enterprise Value	21311.68	14607.04	19708.60	23806.00

Q#7 What is the competitive landscape? What is the role of regulation in the business?

There are a lot of players in the industry like Vinati Organics, Atul Ltd, Aarti Industries, NOCIL, Alkyl Amines etc. but most of them have some sort of niche in the products they are making

The threat of new entrants is very low due to the huge upfront capex requirement, process expertise and supplier relations
There remains a risk of new and better products which can displace DNL's products

Regulation similar to what happened in China might cause a shake-up in the industry which will also affect DNL
Regulation does not play a big role in chemical industry, unlike, for example, Pharma

Due to the China situation highlighted below + import substitution + China plus one factor, there are a lot of industry tailwinds (have been playing role since the past few years as well) in specialty chemical industry in India and 2020-30 could prove to be an interesting decade

Source: VP Presentation Chemicals Sector 2.0

Q#8 Does the company enjoy an Economic Moat? What are its sources?

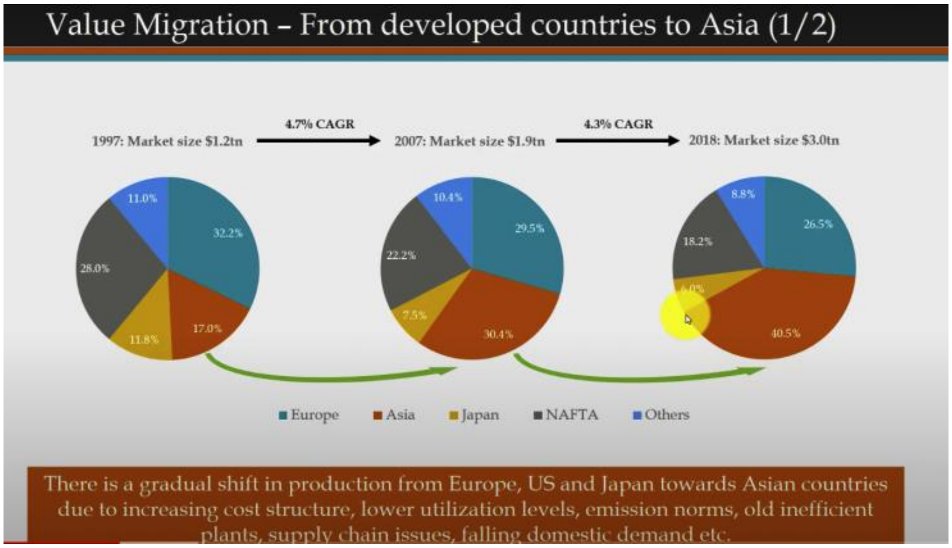
DNL derives its moat from the following:

1. Cost efficiency due to huge scale
2. Process expertise for certain segments
3. Strong relationships with suppliers (especially in the case of Performance Products and Specialty chemicals)
4. Forward and backward integration into existing products
5. Strong entry barriers in the form of capex (a company requires at least 4 years to setup a Phenolics plant as big as DNL and even then, it is not easy to stabilize the plant)
6. Proximity to key raw materials (Phenol/Acetone demand cluster around Dahej)

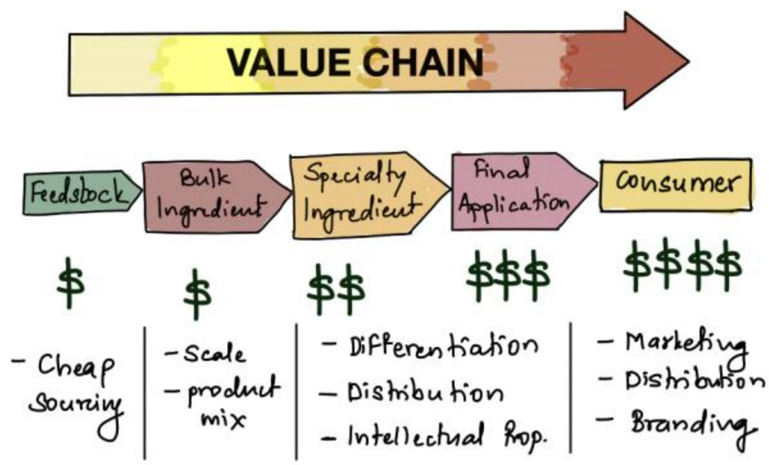
GROWTH CHECKLIST

Q#9 What is the addressable market opportunity and its key drivers?

Already discussed some of this in Question 2



Source: Vivek Mashrani presentation



Source: PPFAS presentation

I was quite curious about the sources of future growth for DNL, so decided to dig a bit further:

Phenolics

Example 1: Isopropyl Alcohol (already started)

Raw Material required - Acetone

Deepak Nitrite recently setup a 30K MTPA plant and is doubling the capacity by Q3 FY21, so even if we normalize the current super-high price realization of IPA, it **should be able to capture a decent % of demand as 'import substitute'**

From Acetone to IPA, what is heartening to see is that the **company is moving towards value-added products** and is competing in a **big market** (emphasis on change in realizations in the below table, although the increase in value added will not be equal to the exact difference of realizations, **my point is that the company is 'doing more of what it does'**)

FY	Value	Quantity KGS	Realisation
FY21	₹110 Cr	7,630,910	₹144
FY20	₹280 Cr	72,401,880	₹39
FY19	₹521 Cr	116,760,470	₹45
FY18	₹749 Cr	146,878,310	₹51
FY17	₹630 Cr	135,887,340	₹46
FY16	₹284 Cr	81,249,970	₹35

→

FY	Value	Quantity KGS	Realisation
FY21	₹204 Cr	10,828,190	₹188
FY20	₹740 Cr	140,684,320	₹53
FY19	₹858 Cr	126,379,370	₹68
FY18	₹620 Cr	98,150,280	₹63
FY17	₹483 Cr	86,297,300	₹56

Source: Phreakonomics

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FY	Value	Quantity KGS	Realisation
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FY17	₹483 Cr	86,297,300	₹56
FY16	₹392 Cr	74,622,160	₹53

(Acetone Imports to India) on the left and **(Isopropyl Alcohol Imports to India)** on the right

A huge opportunity which DNL has with Phenolics, is **to go downstream with more value added products**
The below 2 examples were mentioned in their annual reports (as well as on their website) as potential products, so I just wanted to know more about them in case they decide to go ahead with this)
Example 2: Bisphenol A
Raw Material Required- Acetone, Phenol
Major Use cases include **making polycarbonates** (a hard, clear plastic) and **epoxy resins**
According to 2018 Annual Report, the local demand for BPA was ~80K MTPA and similar figure can also be obtained from the table below:

FY	Value	Quantity KGS	Realisation
FY21	₹92 Cr	5,336,000	₹172
FY20	₹657 Cr	75,508,400	₹87
FY19	₹871 Cr	75,950,470	₹115
FY18	₹578 Cr	67,679,300	₹85
FY17	₹389 Cr	51,966,590	₹75
FY16	₹335 Cr	46,675,450	₹72

The good part seems to be **Value-Addition + Big Market**

(More about BPA here https://www.gminsights.com/industry-analysis/bisphenol-a-market)
Example 3: Methyl Isobutyl Ketone (MIBK)
RM- Acetone
Major Use cases are as solvent for manufacturing paints, as chemical intermediates and also used in semiconductor industry
According to Annual Report 2018, the local demand for MIBK was ~28K MTPA and as can also be seen from the data below, this also presents a good opportunity for the company (not as big as BPA or IPA but still)

FY	Value	Quantity KGS	Realisation
FY21	₹35 Cr	3,041,600	₹115
FY20	₹182 Cr	29,976,530	₹61
FY19	₹295 Cr	33,931,990	₹87
FY18	₹312 Cr	34,684,070	₹90
FY17	₹173 Cr	22,487,100	₹77
FY16	₹120 Cr	16,445,220	₹73

*Another potential product from their website which caught my eye was **Polycarbonate**, which again has Bisphenol A as its raw material
This product also has a huge market size and is imported in vast quantities in India (also it seems like GAIL is interested in the space too https://www.chemanalyst.com/industry-report/india-polycarbonate-market-76)

FY	Value	Quantity KGS	Realisation	Value Growth %	Volume Growth %	Realisation Growth %
FY21	₹457 Cr	8,873,480	₹515	-83%	-95%	243%
FY20	₹2,633 Cr	175,691,780	₹150	-29%	-8%	-23%
FY19	₹3,692 Cr	190,434,790	₹194	44%	20%	20%
FY18	₹2,562 Cr	158,944,170	₹161	26%	15%	10%
FY17	₹2,041 Cr	138,438,960	₹147	48%	50%	-1%
FY16	₹1,376 Cr	92,307,860	₹149	0%	0%	0%

Q#10 What is the company's growth plan? How sustainable is the growth?

1. In FY20, company invested 125cr to acquire a land parcel at Dahej for future expansion, and another 145cr for de-bottlenecking of plants and other capacity expansions
2. The company also incorporated a 100% owned subsidiary, Deepak Clean Tech in Oct'20
3. The company is constantly looking at new geographies to expand to. In FY21 initial quarters when domestic demand for Phenolics was lackluster, company found new avenues to export
4. The company wants to aggressively scale up in the coming few years and is looking at additional capex as well
5. Expectation is that due to change in product mix (FSC increasing and downstream integration in phenolics segment) should help drive margins and lead to better growth
6. The company has also started talking about potential products in the past few years, along with information about these on their website (phenol derivatives like MIBK)
7. For FY21, capex to be ~400cr and probably even higher in FY22 (both greenfield and brownfield expansions)

MANAGEMENT CHECKLIST

Q#11 Is the management high on integrity and transparency?

In my opinion, the management scores very high on **'walking the talk'**, based on the following instances:

- In FY14, the management guided that for FWA, plant will take around 3 years to reach full utilization levels and breakeven and the management went on with the loss-making entity, turned it around completely in FY19 (yes, there was a delay) but it shows that the management is **capable of seeing the bigger picture** and **taking bold decisions**.
  And as luck would have it, FY20 was driven by PP (Performance Products)
- In the 2016 annual report , they mentioned that **in the long run, the Phenol and Acetone plants would be used for specialty chemicals** and they seem to have executed this starting from Q1FY21 (with an opportunistic **bet on IPA (Isopropyl Alcohol)**, which is in huge demand because of its use in sanitizers and also as a solvent in pharma industry)
- In Dec'16, they said **they expect to grow the specialty chem business at 15% CAGR for next 5 years** and the **results are not bad (12-13% till 2020)**. I wouldn't necessarily cut their points for missing this target
- Before the commencement of the phenol plant, Deepak Nitrite's management mentioned that they will ramp up the capacity utilization to 75% in the first year, 85% in the second year & 95% in the third year.
  The capacity utilization was 85% in the first year of operations & 100% in the second year.
- Deepak Mehta, in a 2016 interview said that the company will triple its revenue in the next 3-4 years (and revenue grew from ~1300cr in FY16 to ~4200cr in FY20)

I believe the management **knows what they're doing**, have **skin in the game**, **capitalizing on every opportunity** they get

Having studied Vinati Organics before this, I find the **management of Deepak Nitrite to be super-hungry (huge debt for expansion in Deepak Nitrite vs no-debt Vinati Organics)**, although this does come with downside risks

Q#12 Is the management competent?

I've analyzed management competence from 2 angles:

1. Financial metrics
   As already stated before, the company generates good returns on investment (Seen from the increasing trend of ROE, ROCE, asset turns etc.)
2. Operations/execution
   According to a scuttlebutt, when the company was planning to setup its phenolics plant, even the investors who had good respect for the company weren't very sure because
   a. Phenolics plant of such a huge size is incredibly hard to stabilize
   b. Players like Reliance and IOC had also tried to enter the phenolics market before Deepak Nitrite but found it extremely challenging and did not go ahead with it. A lot of the industry folks were of the opinion that it would be very difficult for Deepak Nitrite to setup and stabilize the plant despite having high regards for the promoters technical prowess

Q#13 Does the management have passion / growth mindset?

Management has a strong growth mindset, which can be seen by the following points:

1. **Aggressive capacity expansion**
   a. Over FY16-19, management setup a Phenolics plant and spent ~1500cr on capex, which was 3x compared to the fixed assets DNL had at that time
   b. Even after that, in FY20, the company bought various pieces of land, spent on de-bottlenecking as well as capacity expansion
   c. Doubling of IPA capacity in FY21 form 30k TPA to 60k TPA
2. Operating/financial leverage

	FY16	FY17	FY18	FY19	FY20
Financial Leverage	2.7	2.5	2.8	2.7	2.1
Operating Leverage				2.0	2.8

where Financial Leverage = (Total Assets)/(Net worth)
Operating Leverage = (% change in EBIT)/(% change in Sales)

To put operating leverage into context,
% change in EBIT = operating leverage * % change in sales

From FY19 to FY20,
Sales grew from 2700 cr to ~4200cr (1.56 times or increase of 56%)
While EBIT grew from 355cr to ~900cr (2.6 times or increase of 160%)
This is some serious operating leverage at play here, highlighting disproportionate growth

(Therefore, operating leverage = (160%)/(56%) = 2.8)

i.e for every 1 rupee change in sales, EBIT is affected to the magnitude of ~2.8

	FY19	FY20	% change 19-20
Sales	2700	4230	**56.7%**
Profit before tax/EBT	268	806	**200.7%**

EBITDA	**433**	**1064**	**145.7%**
EBIT	**355**	**924**	**160.3%**

If equity multiplier = 1.1, it means that for every 1.1rs of assets, there is only 1rs of equity and rest is debt (leverage is high for this company, which signals fast-growth, this comes with its own set of risks during a downturn in economic cycle)
Equity multiplier also drives the return on equity (higher equity multiplier translates into higher return on equity)

3. Incorporated a new subsidiary, Deepak Clean Tech Ltd in Oct'20 to focus on chemical intermediates which again can be a good growth engine

Although DNL has been growing organically for a long period of time now, it did acquire Basant Chemicals in year 2013 (for a sum of 55cr)

Q#14 Does the company have a rational capital allocation policy?

In FY20,
The company had ~0 net cash flow and the broader numbers are as follows:
Cash flow from operations = 765cr
Cash from from Investing Activity = -428 cr (majority was spent on purchase of fixed assets)
Cash from financing activity = -338cr (1/3rd spent on repayment of debt, 1/3rd spent on interest, 1/3rd on dividends)

Cash Flows

Consolidated Figures in Rs. Crores / View Standalone

	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020
Cash from Operating Activity +	108	167	49	183	60	765
Cash from Investing Activity +	-89	-169	-353	-525	-163	-428
Cash from Financing Activity +	-22	4	305	345	96	-338
Net Cash Flow	**-3**	**2**	**1**	**4**	**-6**	**-1**

Consolidated Figures in Rs. Crores / View Standalone

	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020
Cash from Operating Activity +	108	167	49	183	60	765
Cash from Investing Activity -	**-89**	**-169**	**-353**	**-525**	**-163**	**-428**
Fixed assets purchased	-106	-87	-296	-622	-256	-417
Fixed assets sold	16	0	55	1	2	1
Investments purchased	2	-271	-714	-297	-108	-221
Investments sold	-2	187	684	387	138	221
Interest received	1	0	1	2	2	2
Dividends received	0	1	0	0	0	0
Invest in subsidiaries	-0	0	0	0	0	0
Issue of shares on acq	0	0	-16	0	0	0
Other investing items	0	0	-66	4	60	-14
Cash from Financing Activity -	**-22**	**4**	**305**	**345**	**96**	**-338**
Proceeds from shares	0	81	146	146	0	0
Proceeds from borrowings	42	32	301	476	381	25
Repayment of borrowings	-55	-75	-85	-213	-178	-134
Proceeds from deposits	0	0	0	0	0	0
Interest paid fin	-37	-37	-34	-45	-84	-115
Dividends paid	-10	-10	-14	-16	-21	-106
Financial liabilities	0	0	0	0	0	-2
Other financing items	39	14	-10	-3	-2	-6
Net Cash Flow	**-3**	**2**	**1**	**4**	**-6**	**-1**

Source: Screener.in

The company earns decent ROCE in all of the segments, as illustrated by the table below

ROCE	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**
Phenolics			-1%	17%	29%
Basic Chemicals	38%	29%	45%	50%	62%
Performance Products	-2%	-6%	-3%	26%	100%
Fine & Specialty Chemicals	33%	27%	32%	42%	56%

The company has a good history of re-paying debt
Dividend Payout Ratio is low (varies from 10-20% in the past 5 years) because DNL is fast-growing company, most of the money is re-invested back in the business
(one check that must be done from time to time is the quality of balance sheet in terms of debt, if the company does not decrease leverage)

Balance Sheet

CORPORATE ACTIONS

Consolidated Figures in Rs. Crores / View Standalone

	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Sep 2020
Share Capital +	21	23	26	27	27	27	27
Reserves	325	450	689	895	1,044	1,545	1,813

Q#15 Does the company have a suitable organization structure and management depth?

Key-man succession is not a risk in case of DNL, since the current CEO (Maulik Mehta) has just been appointed (and is just 37 years of age).
This is helped by the fact that he had already been a part of the organization for a few years, so familiarity with the organization is a plus.
Also, there's CMD Deepak Mehta for guidance, who's been with the company since 30+ years

Also, the top management has been around for a while (CFO 25 years+)
In one of the concalls, the CEO stated that for every decision the company takes, they undergo a series of "boring processes" to ensure that they generate a healthy ROCE

Q#16 What is the organization culture?

While this has low visibility, but the tenure of top management as stated earlier is a very positive point in favor of good organization culture.
Also, since small and mid-cap companies in India are more driven by the performance of the top management (Generally the promoters), this is what matters more

Q#17 Does the company have a sound succession plan?

Same as above

Q#18 Do the owners have enough skin in the game?

Promoters have skin in the game and own ~45% stake in the company and holdings have been stable in the past few years

	Mar 2018	Jun 2018	Sep 2018	Dec 2018	Mar 2019	Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Sep 2020	Dec 2020
Promoters +	44.65	44.63	44.63	44.63	44.85	44.85	45.64	45.64	45.69	45.69	45.69	45.69

Q#19 Have the promoters pledged a large portion of their holding and why?

No

Thesis in summary
Source: SOIC

Q#20 What can go wrong with the company narrative and numbers?

- Regulations crackdown, similar to what happened in China
- Inability to execute specialty derivatives of Phenol and Acetone, much expected growth driver for the company
- Economic/sector slowdown
- Fire incidents, which are not uncommon in chemical factories (like the one at Roha plant of DNL in 2017)
- Cyclicality of RM prices and commodity chemicals
- More efficient technology or better substitute products, by competitors in the same products DNL competes for
- Capital misallocation- although management has allocated capital very well till now, this still remains a low risk item
- Risk that the new CEO, Maulik Mehta is unable to handle the business

Valuations:

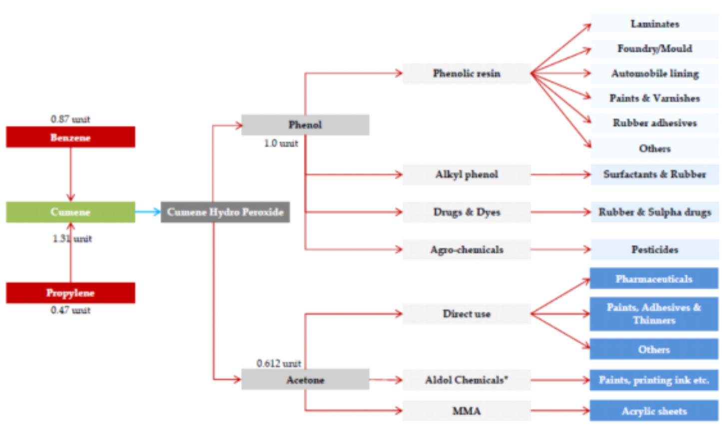
The company has had a stupendous run in the past 1 year especially and the story of Deepak Nitrite turning from a "commodity chemical company" to a "specialty chemical company" is playing out and its P/E has increased from ~10-15 to ~30 to match its peers

Although margin of safety at this price is low, the stock appears to be fairly valued (and a lot of expectations are already being accounted for by the market)

	Deepak Nitrite Ltd	Vinati Organics Ltd	Atul Ltd	Aarti Industries Ltd
Market Cap	20658.77	14611.5	19919.48	21896.92
Stock P/E	**31.4**	**53.5**	**32.03**	**43.99**
PEG Ratio	0.5	2.28	1.43	2.05
Price to book value	**11.23**	**10.37**	**5.61**	**6.82**
EV/EBITDA	**19.88**	**37.4**	**20.18**	**25.29**

Appendix

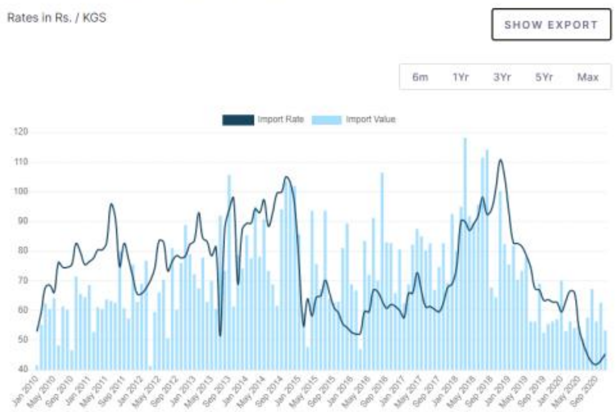
An example of an intermediate in the chemical industry is cumene. The term intermediate in the chemical industry usually means a product of a reaction that is only beneficial when used as a precursor chemical for another industry. Cumene is made from benzene and propylene, and is then used to produce acetone. Cumene, without additional reactions, has very little value and no real use, which makes it an intermediate instead of a useful chemical product.



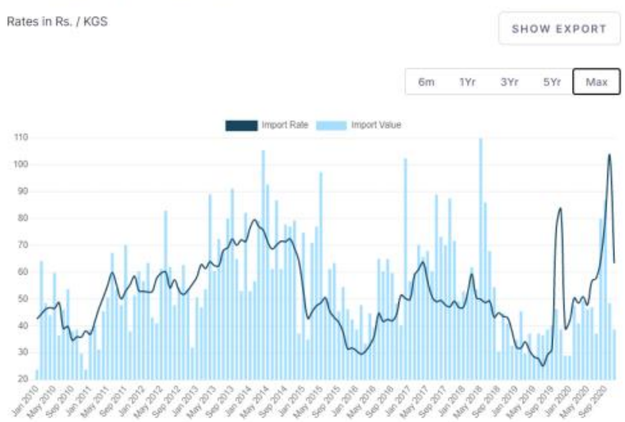
Source: Anand Rathi Report

Phenol and Acetone come under Phenolics, cyclical in nature

PHENOL,PURE CARBOLIC ACID: HS Code - 29071110



ACETONE: HS Code - 29141100

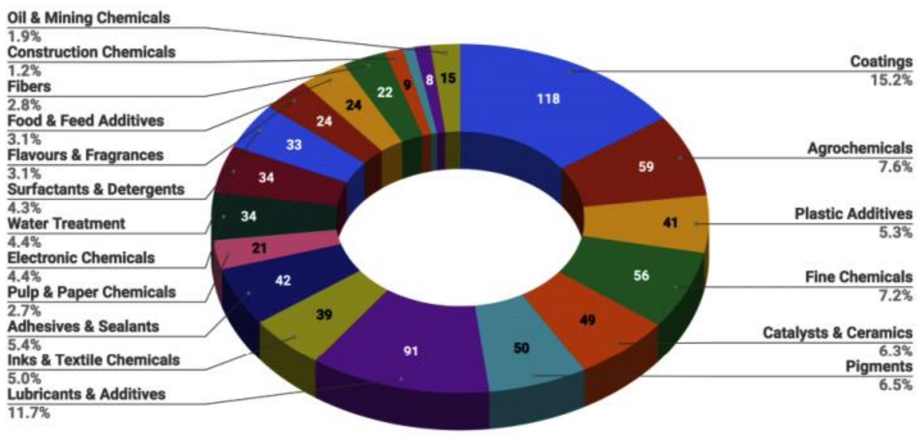


Source: Screener.in

OPTICAL WHITENING AGENTS: HS Code - 32042010

Optical Whitening Agent is an example of Performance Product, which is more or less stable.
2019 was an exceptional year where one of the world's largest producer of this chemical (Lion Chemical) shut down the production of this product due to a fire in their plant

Functional Chemicals Market Size $ 773 Bn



PPFAS presentation

KEY RATIOS

Ratios	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E
PROFITABILITY %								
Gross Margin	39.9	38.3	37.1	39.0	43.9	48.5	44.4	45.0
EBITDA Margin	12.1	9.9	11.9	15.3	24.3	26.5	22.7	23.3
EBIT Margin	9.3	6.4	8.7	12.4	20.9	23.4	19.8	20.4
APAT Margin	4.6	4.9	4.8	6.4	14.4	16.6	14.4	15.1
RoE	15.4	11.4	9.7	17.4	46.2	36.6	28.8	27.1
RoIC	9.4	3.9	9.8	13.3	27.6	27.6	26.0	27.6
RoCE	9.0	7.2	6.4	10.5	27.2	25.5	22.9	23.1
EFFICIENCY								
Tax Rate %	29.4	28.4	28.7	35.2	24.2	25.4	25.6	25.6
Fixed Asset Turnover (x)	1.6	1.5	1.7	1.7	1.8	1.6	1.7	1.8
Inventory (days)	32	45	72	56	34	34	34	34
Debtors (days)	83	96	91	78	53	50	54	53
Other Current Assets (days)	37	56	46	20	10	11	9	8
Payables (days)	59	93	172	105	56	61	57	57
Other Current Liab & Provns (days)	25	23	27	13	6	7	6	5
Cash Conversion Cycle (days)	69	80	10	36	35	27	34	33
Net Debt/EBITDA (x)	3.1	5.2	4.8	2.8	1.0	0.7	0.5	0.1
Net D/E	1.1	1.0	1.0	1.1	0.7	0.3	0.2	0.0
Interest Coverage	3.2	2.6	3.2	4.0	7.7	13.0	20.4	29.4
PER SHARE DATA (Rs)								
EPS	4.6	5.0	5.8	12.7	44.8	49.1	51.0	60.4
CEPS	7.5	8.5	9.6	18.4	55.0	58.5	61.2	71.7
Dividend	1.0	1.2	1.2	1.3	6.5	7.1	7.4	8.8
Book Value	34.7	52.4	67.6	78.6	115.2	155.8	197.9	247.8
VALUATION								
P/E (x)	225.7	209.4	179.7	81.8	23.2	21.2	20.4	17.2
P/Cash EPS (x)	138.6	122.6	107.9	56.5	18.9	17.8	17.0	14.5
P/BV (x)	30.0	19.9	15.4	13.2	9.0	6.7	5.3	4.2
EV/EBITDA (x)	88.3	110.0	77.1	37.1	14.9	13.8	13.5	11.2
EV/Revenue (x)	10.7	10.9	9.2	5.7	3.6	3.7	3.1	2.6

Source: HDFC Report

References:

1. PPFAS Chemical Sector https://youtu.be/TtHVVUz-UJA
2. Vivek Mashrani Chemical Sector Analysis https://youtu.be/S2fZCc70__Y
3. SOIC Deepak Nitrite https://youtu.be/iKy_J-skqb8
4. Deepak Nitrite ValuePickr Thread
5. VP Chintan Baithak 2019 https://forum.valuepickr.com/t/valuepickr-chintan-baithak-2019-chemicals-2-0-sector-presentation/23071
6. Screener.in
7. Company annual reports