



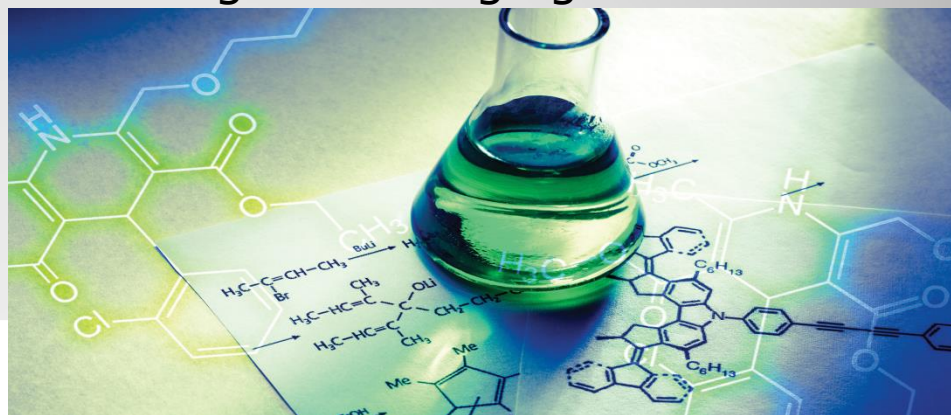
CLEAN SCIENCE AND TECHNOLOGY



Incorporated in 2003, Clean Science and Technology is one of the leading chemical manufacturers globally. It is among the few companies focused entirely on developing newer technologies using in-house catalytic processes, which are eco-friendly and cost competitive. This has enabled company to emerge as the largest manufacturer globally of certain specialty chemicals in terms of installed manufacturing capacities as of March 31, 2021. The company's continued focus on product identification, process innovation, catalyst development, significant scale of operations as well as its measures towards strategic backward integration have all contributed to its success as one of the fastest growing and among the most profitable specialty chemical companies globally.

Industry: Chemical Industry

Green chemistry is an emerging focus among manufacturing industries that minimises pollution at a molecular level. The idea is that companies can adopt new scientific processes to minimise the toll their products take on the environment. Green chemistry is the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances. Green chemistry applies across the life cycle of a chemical product, including its design, manufacture, use, and ultimate disposal. Companies are actively designing novel concept to reduce emission of hazardous substances. The changes can be as large as changing the entire chemistry or even as small as changing certain catalyst to reduce carbon footprints. The companies are actively switching their production process to green chemistry.



- The company manufactures functionally critical specialty chemicals such as Performance Chemicals (i.e. MEHQ, BHA and AP), Pharmaceutical Intermediates (i.e. Guaiacol and DCC), and FMCG Chemicals (i.e. 4-MAP and Anisole). The company's specialty chemicals have a wide range of applications that cater to a diverse base of customers across industries.
- Its customers include manufacturers and distributors in India as well as other regulated international markets including China, Europe, the United States of America, Taiwan, Korea, and Japan. In Fiscal 2021, revenue from operations for sales outside India represented 67.86% of its total revenue from operations, respectively.
- It has two certified production facilities with a combined installed capacity of 29,900 MTPA in India strategically located at Kurkumbh (Maharashtra), in close proximity to the JNPT port from where it exports majority of its products.
- The company is among the leading companies in India to have commercialized use of environment-friendly processes to manufacture certain specialty chemicals, at global capacities. The company's products are used as key starting level materials, as inhibitors, or as additives, by customers, for products sold in regulated markets. Key customers include Bayer AG, SRF Ltd, Gennex Laboratories, Nutriad International NV and Vinati Organics.

Key materials – Performance products

Performance chemicals (also known as speciality chemicals) are particular chemical products that provide a wide variety of effects on which many other industry sectors rely. These are low volume and high margin products. These intermediaries find application in agrochemicals, pharmaceuticals, pigments and personal care products.

The company's specialty chemicals have a wide range of applications that cater to a diverse base of customers across industries. The company's products are used as key starting level materials, as inhibitors, or as additives, by customers, for products sold in regulated markets. The customer relationships have been strengthened over a long period, based on the company's ability to consistently deliver quality products at competitive prices.

70% of the sales comes from two products : MEHQ and BHA



Market share in key products

Product	Global market size	Company India position	Company Global position
ANISOLE	34,000 MT	LARGEST IN THE INDIA	LARGEST IN THE WORLD
MEHQ	12,500 MT	LARGEST IN THE INDIA	LARGEST IN THE WORLD
BHA	9,000 MT	LARGEST IN THE INDIA	LARGEST IN THE WORLD
4-MAP	7,200 MT	LARGEST IN THE INDIA	LARGEST IN THE WORLD
GUAIACOL	60,000 MT	SECOND LARGEST IN THE INDIA	THIRD LARGEST IN THE WORLD
DCC	7,000 MT	LARGEST IN THE INDIA	AMONGST LARGEST IN THE WORLD
L-ASCORBYL	450 MT	SECOND LARGEST IN THE INDIA	SECOND LARGEST IN THE WORLD

MEHQ Application



USED IN DERMATOLOGY



USED AS AN INTERMEDIATE IN BHA



USED IN POLYMERS & MONOMERS



USED AS THE BUILDING BLOCK FOR AGROCHEMICAL



INK INDUSTRY

- THE INDUSTRY IS GROWING AT A CAGR OF 5.8% & THE CURRENT MARKET SIZE IS AT \$128 MILLION USD
- NUMBER ONE IN THE WORLD & COMPETES WITH SOLVAY & CAMLIN

Product	Application
GUAIACOL	In Pharma and in vanillin production
BHA	In food packaging and animal feed
4-MAP	In cosmetics and UV filters

Strategy

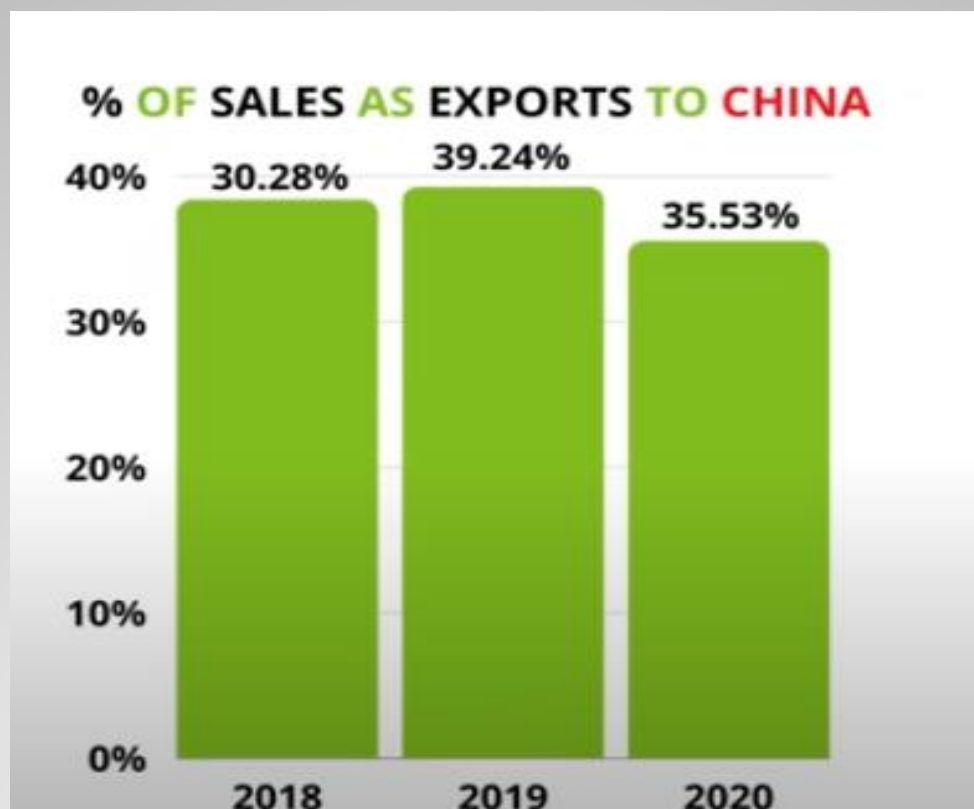
What makes a chemical company successful is the strategy of integration. Clean Science followed the strategy of **backward integration**.

The higher margin products of the company are performance chemicals ,i.e., MEHQ and BHA. 60-65% of the revenue of the company comes from these performance chemicals.

The company used to source its key starting material –ANSOLE from outside. In 2018 it started manufacturing it in-house, but using liquid technology. This did not fetch good margins. In 2019 it became world's first-ever company to produce Anisole by vaporization based. The margins of the company started expanding. Then it started increasing its production capacity of Anisole by many folds.



Exports to china



Strengths

- Strategic process innovation through consistent R&D Initiatives: Clean Science and Technology Limited is among the leading companies in India to have commercialized use of environment-friendly processes to manufacture certain specialty chemicals. This was possible by optimizing the use of conventional raw materials, improving atom economy, enhancing yields, reducing effluent discharge, and consequently increasing cost competitiveness. This process at such a large scale is difficult to replicate and creates a significant barrier for new entrants.
- One of the largest producers globally of certain critical specialty chemicals used across industries: Clean Science and Technology Limited is amongst the largest producer of certain specialty chemicals in terms of manufacturing capacities as of FY21. The company's products are used as polymerization inhibitors, intermediates for agrochemicals and pharmaceuticals, antioxidants, UV blockers, and anti-retroviral reagents, which are functionally critical in a wide range of industries, including in the manufacture of paints and inks, agro-chemicals, pharmaceuticals, flavors and fragrance, food and animal nutrition, and personal care products.

- Strong and long-term relationships with key customers: The company's ability to meet the demand along with quality at competitive prices has resulted strong and long-standing relationship with various multinational corporations. Revenue generated from the top 10 customers represented 47.9% of the revenue from operations as of FY21. The company's long-term relationships and ongoing active engagements with customers also allow them to plan their capital expenditure, enhance the company's ability to benefit from increasing economies of scale with stronger purchasing power for raw materials and a lower cost base.
- Automated manufacturing capabilities with dedicated product lines: Clean Science and Technology Limited has two manufacturing facilities in India with 11 production lines which has a combined installed capacity of 29,900 MTPA as of 31st March 2021. The company has dedicated production lines for their key products, which helps in limit losses and capacity reductions that are typically incurred during transitioning between products.

OPPORTUNITIES

- Capitalize on Industry Opportunities: The tightening of the environmental norms in China have resulted in closure and relocation of manufacturing

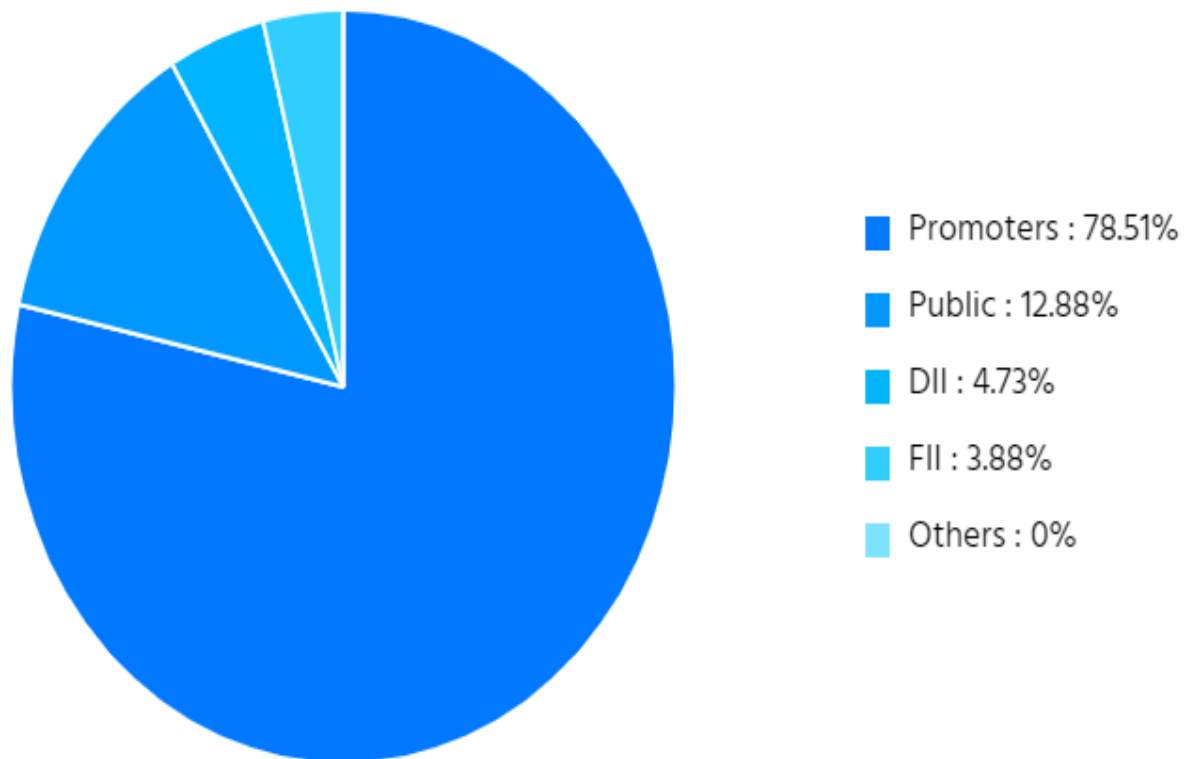
- facilities along with rising labour cost. This will enable India to significantly strengthen its position in the global supply chain and position itself as a viable alternative for global players seeking a de-risked supply chain while retaining sourcing costs. Clean Science and Technology Limited is well positioned to capitalize on these opportunities in the specialty chemicals segment due to its lower cost of production in India as compared to imports from China.
- Expand their sales and distribution network in international markets Clean Science and Technology Limited intends to expand globally in order to serve the existing direct end-use customers and distributors, as well as to secure new direct end-use customers and distributors and expand the reach of their products to new markets. The company intends to achieve this by having dedicated teams whose primary focus will be on exports in international markets and in certain focus geographies, such as Europe, China and Americas. The management's focus will be on increasing the number of stock points they have globally and strengthen their sales team in India to ensure that the company is able to deliver products in a timely manner.

- Expand and set up new manufacturing capacities for existing and new products - To cater to the growing demand of the company's existing customers and to meet requirements of the new customers, Clean Science and Technology Limited is in the process of expanding the manufacturing capacities for some of their existing products. The company intends to add manufacturing capacities for certain new products that will be a part of their stabilizer/ additive product portfolio for application in paints and coatings, pharmaceutical, flavours and fragrance, and agriculture industries.

THREATS

- Loss of customer to impede performance – Top 10 customers contribute 48% to overall revenue while top client constitutes ~13% of the topline. Loss of customer or lower business growth from large customers owing to intense competition can impede the growth of the business

Share Holding Pattern



Peer Comparison

COMPANY	PRICE Rs.	MCAP Cr.	P/B	P/E	EPS Rs.	ROE %	ROCE %	P/S	EV/EBITDA
Pidilite Inds.	2,391.45	1,21,523.61	21.06	92.49	25.86	21.65	29.24	19.55	63.52
Aarti Inds	969.95	35,161.08	7.21	55.83	17.37	16.27	12.80	8.15	33.17
Deepak Nitrite	2,274.20	31,018.51	15.51	72.05	31.56	21.27	27.32	17.15	48.77
Clean Science	2,387.80	25,362.96	39.12	127.85	18.68	44.96	60.45	49.50	88.39
Atul	8,500.45	25,150.32	6.09	38.74	219.41	18.61	24.47	7.16	25.34
Solar Industries	2,550.75	23,081.75	19.16	108.64	23.48	17.36	21.35	14.57	68.85
Gujarat Fluorochem	2,099.80	23,066.30	6.04	0	-1.94	-6.38	11.19	9.14	24.65
Tata Chemicals	883.60	22,510.26	1.57	37.65	23.47	3.80	5.01	7.51	22.00
Vinati Organics	1,980.85	20,359.58	12.38	68.48	28.93	19.08	23.80	21.34	48.44

PE ratio: - Clean Science has a PE ratio of **127.85** which is **high** and comparatively **overvalued** .

EBITDA: - Clean Science has highest EBITDA of 88.39%, which is **great**.

ROCE:- Clean Science is providing 60.45% return on capital employed, which is highest among its competitors.

Financial statements



Balance sheet

Year end March	FY19	FY20	FY21
Liabilities			
Share Capital	1.4	1.3	10.6
Reserves	270.6	340.8	529.0
Total Shareholders Funds	272.1	342.1	539.7
Minority Interest	0.0	0.0	0.0
Long Term Borrowings	0.1	0.3	0.3
Net Deferred Tax liability	13.9	13.2	17.6
Other long term liabilities	0.0	0.0	0.0
Long-term provisions	0.3	0.3	0.4
Current Liabilities and Provisions			
Short term borrowings	2.5	2.4	0.0
Trade Payables	22.3	35.7	61.0
Other Current Liabilities	16.2	35.7	40.8
Short Term Provisions	0.1	0.1	0.2
Total Current Liabilities	41.1	74.0	102.0
Total Liabilities	327.5	429.9	659.9
Assets			
Net Block	125.1	162.9	182.9
Capital Work in Progress	3.9	3.4	55.0
Non-current investments	0.0	0.0	0.0
Other Non Current Assets	5.9	6.6	26.9
Current Assets, Loans & Advances			
Current Investments	75.2	133.0	232.1
Inventories	37.0	34.6	52.9
Sundry Debtors	59.8	69.8	74.2
Cash and Bank	9.4	9.3	15.7
Loans and Advances	0.0	0.2	0.2
Other Current assets	11.1	10.1	20.0
Current Assets	192.6	257.0	395.1
Total Assets	327.5	429.9	659.9

Balance sheet Analysis

	FY 2019	FY 2020	FY 2021
ROCE (%)	50.75	58.48	73.89
ROE (%)	35.90	40.82	36.76

The company has delivered excellent return ratios i.e. ROE of 35.90%, 40.82% and 36.76% during fiscal years of 2019, 2020 and 2021, respectively, while ROCE during the same period was 50.75%, 58.48% and 73.89%, respectively.



Statement of Profit & Loss

2021 2020 2019

Net Sales	512.43	419.30	393.27
Revenue from operations	25.62	10.87	11.29
Stock Adjustments	14.28	-1.26	7.39
Total Income	552.33	428.91	411.95
EXPENDITURE			
Raw Materials	137.86	127.98	178.61
Power & Fuel Cost	35.95	36.45	33.03
Employee Cost	43.56	31.01	24.86
Other Manufacturing Expenses	31.54	22.54	19.28
Selling And Administration Expenses	12.08	8.19	3.86
Miscellaneous Expenses	6.52	6.28	4.28
Less: Pre-Operative Expenses Capitalised	0.00	0.00	0.00
Total Expenditure	267.51	232.45	263.92
Operating Profit	284.84	196.45	148.03
Interest	0.33	0.41	0.33
Gross Profit	284.51	196.04	147.70
Depreciation	17.21	13.70	11.02
Profit Before Tax	267.30	182.34	136.68
Tax	68.92	42.69	38.88
Net Profit	198.38	139.65	97.80

	FY 2019	FY 2020	FY 2021
Revenue from Operations	3,932.70	4,193.00	5,124.28

Clean Science and Technology Limited's revenue from operations have grown at a CAGR of 14.15% from INR 3,932.70 mn in FY19 to INR 5,124.28 mn in FY21.

Compounded Profit Growth

5 Years:	49%
3 Years:	60%
TTM:	42%

Sales Growth



Profit Growth



Cash Flow Statement

Year end March	FY19	FY20	FY21
PBT & Extraordinary	136.5	182.3	267.3
Depreciation	11.0	13.7	17.2
After other adjustments			
(Inc) / Dec in Working Capital	-20.9	13.1	-14.9
Taxes	-35.5	-42.4	-65.9
Others	-6.4	-6.6	-10.8
CF from operating activities	84.7	160.1	192.8
Purchase of Fixed Assets	-38.8	-50.3	-84.4
Others	-56.1	-56.0	-102.3
CF from investing activities	-95.0	-106.3	-186.8
Proceeds from issue of shares	0.0	-40.1	0.0
Borrowings (Net)	2.0	0.1	-2.4
Others	-12.8	-15.5	-3.5
CF from financing activities	-10.8	-55.4	-5.9
Net cash flow	-21.1	-1.6	0.2
Effects of foreign currency translation	1.0	1.4	0.0
Opening Cash & Bank	29.5	9.4	9.3
Closing Cash & Bank	9.4	9.3	15.7

KEY RATIO ANALYSIS

- **Return on Assets (ROA):** - Return on Assets measures how effectively a company can earn a return on its investment in assets. In other words, ROA shows how efficiently a company can convert the money used to purchase assets into net income or profits. Clean Science has ROA of **36.38 %** which is a **good** sign for future performance.
- **Current ratio:** - The current ratio measures a company's ability to pay its short-term liabilities with its short-term assets. A higher current ratio is desirable so that the company could be stable to unexpected bumps in business and economy. Clean Science has a Current ratio of **3.87** .
- **Return on equity:** - ROE measures the ability of a firm to generate profits from its shareholders investments in the company. In other words, the return on equity ratio shows how much profit each rupee of common stockholders' equity generates. Clean Science has a ROE of **44.96 %** .
- **Debt to equity ratio:** - It is a good metric to check out the capital structure along with its performance. Clean Science has a D/E ratio of **0.00** which means that the company has **low** proportion of debt in its capital.

- **Inventory turnover ratio:** - Inventory Turnover ratio is an activity ratio and is a tool to evaluate the liquidity of a company's inventory. It measures how many times a company has sold and replaced its inventory during a certain period of time. Clean Science has an Inventory turnover ratio of **11.71** which shows that the management is **inefficient** in relation to its Inventory and working capital management.
- **Operating Margin:** - This will tell you about the operational efficiency of the company. The operating margin of Clean Science for the current financial year is **50.58** %.
- **Dividend Yield:** - It tells us how much dividend we will receive in relation to the price of the stock. The current year dividend for Clean Science is Rs **0.31** and the yield is **0.01** %.

RISKS

1. Operations are dependent on R&D capabilities and their inability to continue to design catalytic processes may adversely affect their business.
2. None of catalytic processes are patented and the intellectual property may not be adequately protected.
3. Revenue contribution from sale of products to China, India, Europe, and the Americas remained at 37.12%, 31.41%, 13.82% and 11.47%, respectively. Since there are few competitors from the same business stream present in China, hence any technological developments there can lower the growth outlook and impact the business performance.
4. No long-term agreement with majority of the customers and raw material suppliers.
5. Sale of MEHQ is a significant proportion of their revenue and accounted for 48.08% in FY21. Any reduction in the demand for MEHQ would have an adverse effect on the company's business.
6. Delay or inability in obtaining, renewing or maintaining of the necessary statutory and regulatory permits, licenses and approvals required to operate the business would have an adverse effect on the results of their operations.

7. Market risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company's exposure to the risk of changes in market interest rates relates primarily to the Company's debt obligations with floating interest rates. will affect the Company's income or the value of its holdings of financial instruments

CONCLUSION

Healthy financial performance likely to sustain ahead
The company recorded revenue growth of 14% CAGR in FY19-21 supported by higher volume growth across the segments. With changes in the anisole manufacturing technology, it was able to improve gross margins, to a certain extent, and thereby OPM. Going ahead, with sustainability in gross margins along with better working capital management and operating leverage likely to play out, it can aid FCF considerably. It intends to develop eco-friendly, cost effective processes through biphasic or triphasic reactions, in the form of either vapour-phase reactions, liquid-solid reactions, or liquid-liquid solid reactions. It is also in the process of expanding R&D infrastructure by setting-up an additional R&D unit at Facility III at Kurkumbh (Maharashtra), where it proposes to install R&D equipment for synthesising new products and certain catalysts under development.