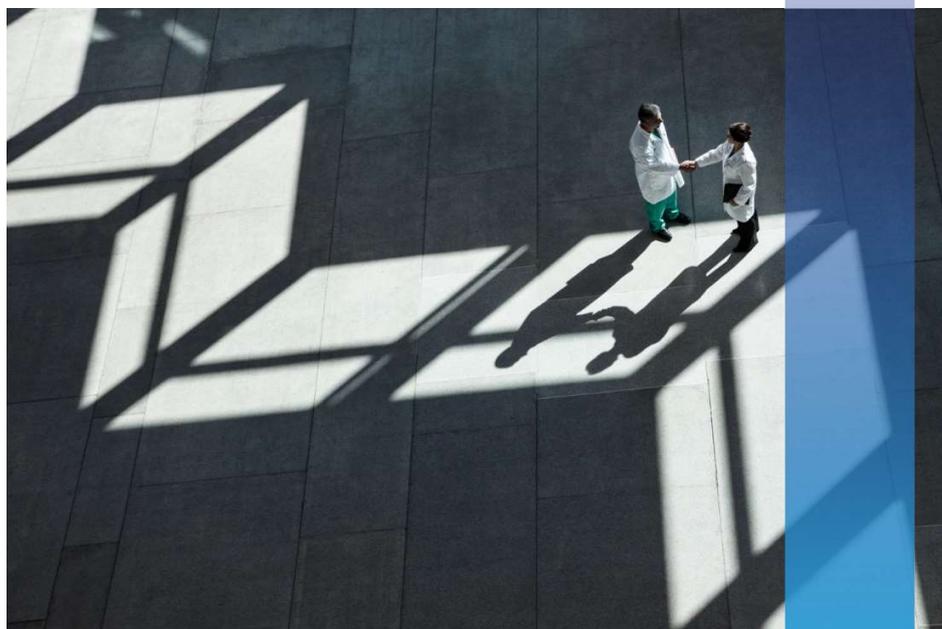




LAKEWATER
Nurturing Visions and Values



Clean Science and Technology Ltd
Initiating Coverage



About the Company

Clean Science & Technology (Clean Science) was launched in 2003 and is one of the few chemical companies to have developed novel technologies via the use of in-house catalytic processes. Indeed, some of the company's approaches are firsts in the globe. Cleaner (fewer effluents) and more cost-effective procedures have helped the company to attain market leadership in each of the recent products it has introduced. The company's success is based on its ability to maintain a continuous focus on product discovery, process innovation, catalyst development, large-scale operations (for each product), and backward integration, where necessary.

Revenue is classified by the firm into three categories: 1) Compounds with high performance, such as MEHQ, BHA, and AP. Additionally, it is in the process of launching the HALS series. 2) Pharmaceutical intermediates (guaiaicol and DCC). 3) Chemicals present in FMCGs (4-MAP and anisole). Clean Science products are used by customers as critical starting materials, inhibitors, and additives in regulated market goods. Customers' products are used in a broad range of industries, including monomers, food and animal nutrition, pharmaceuticals, personal care (cosmetics), agrochemicals, flavor and fragrance, and automotive. Bayer AG, SRF Ltd, Gennex Laboratories, Nutriad International NV, and Vinati Organics are among the company's key clients. It operates two certified manufacturing plants in India with a total installed capacity of 29,900 MTPA strategically located in Kurkumbh (Maharashtra), adjacent to the JNPT port.

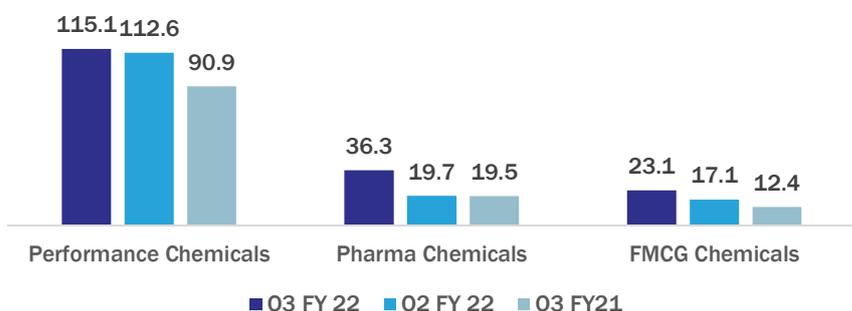


Competitive Advantages

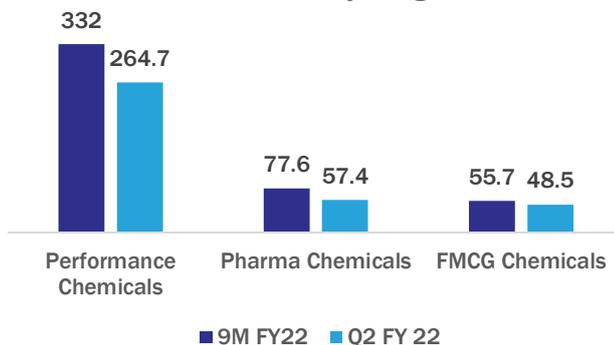
- 1) a far superior business strategy that places a premium on 'green' processes and sustainability
- 2) a sizable competitive advantage derived from continuous flow chemistry and in-house catalysts
- 3) an unchallenged market share in the anisole value chain
- 4) the ability to diversify its product offerings (other than those in the anisole value chain) and achieve global leadership in each
- 5) Stable financial and return on investment performance.

Green chemistry is a growing area of interest among manufacturing businesses. It ensures that contamination is minimized at the molecular level. The concept is that businesses may use innovative scientific procedures to minimize the environmental impact of their products the natural environment. Green chemistry is the process of developing chemical compounds that are environmentally friendly i.e. methods that minimize or completely eliminate the usage or creation of hazardous substances. Green chemistry is applicable throughout a chemical's life cycle. Businesses are actively developing creative concepts for reducing carbon emissions. The modifications might be as extensive as replacing the whole chemistry, or even as simple as substituting a different catalyst for carbon reduction footprints. Businesses are actively converting their manufacturing processes to eco-friendly chemistry.

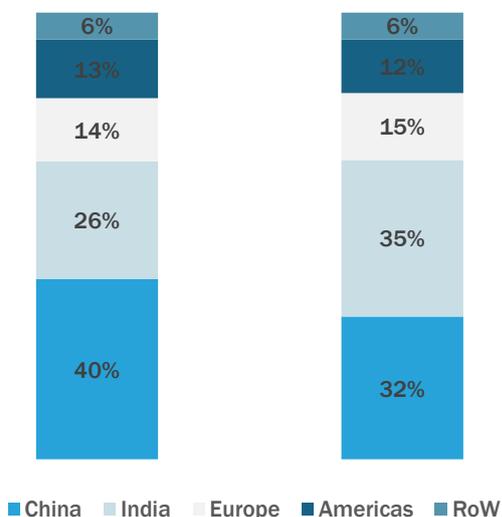
Revenue Mix by Segment



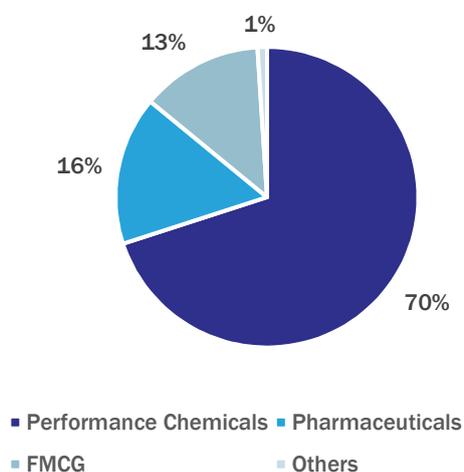
Revenue Mix by Segment



Revenue Mix by Geography



FY 2021 Revenue Contribution (By Segment)



Diversified Product Portfolio

PRODUCT	APPLICATION	REVENUE (INR Crore)
PERFORMANCE CHEMICALS		
➤ MEHQ (Monomethyl ether of hydroquinone)	<ul style="list-style-type: none"> Polymerization inhibitor in acrylic acids, acrylic esters, super absorbent polymers (diapers and sanitary pads) Pre-cursor for agrochemical industry 	FY 2021: 355 FY 2020: 272 FY 2019: 249 FY 2018: 147
➤ BHA (Butylated Hydroxy Anisole)	<ul style="list-style-type: none"> Anti-oxidant in food and animal feed industry 	
➤ AP (L-Ascorbyl Palmitate)	<ul style="list-style-type: none"> Infant food formulations, breakfast cereals and cosmetics 	
PHARMACEUTICAL CHEMICALS		
➤ Guaiacol	<ul style="list-style-type: none"> Pre-cursor to manufacture APIs for cough syrup 	FY 2021: 83 FY 2020: 64 FY 2019: 68 FY 2018: 50
➤ DCC (Dicyclohexyl Carbodiimide)	<ul style="list-style-type: none"> Reagent in anti-retroviral 	
FMCG CHEMICALS		
➤ 4-MAP (4-Methoxy Acetophenone)	<ul style="list-style-type: none"> Used in UV blocker in sunscreens (cosmetics industry) 	FY 2021: 63 FY 2020: 67 FY 2019: 61 FY 2018: 33
➤ Anisole	<ul style="list-style-type: none"> Precursor to perfumes, insect pheromones, pharmaceuticals 	

Clean Science has two production plants in Kurkumbh (Maharashtra) (Maharashtra). Each facility is equipped with a research and development unit, a quality control department, a warehouse, and an effluent treatment system, and both are zero liquid discharge facilities. It comprises a different production line for each product, reaching 29.9ktpa as of FY21. In FY21, it utilized 71.9 percent of its capacity. The firm is in the process of developing its third facility in Kurkumbh, next to the present ones, and has already bought property for its fourth facility in Kurkumbh (34-acre land, which is higher than the three existing sites altogether) (34-acre land, which is higher than the three existing sites cumulatively). Additionally, Clean Science's production facilities for BHA and AP are acknowledged with the US Food and Drug Administration as qualified food facilities.

Product and market position of the company in each product

Product	Global Market Size (Volume)	Company Global Position	Company India Position
MEHQ	12,500 MT	Largest in the World	Largest in India
BHA	9,000 MT	Largest in the World	Largest in India
Guaiacol	60,000 MT	Third Largest in the World	Second Largest in India
Anisole	34,000 MT	Largest in the World	Largest in India
4-MAP	7,200 MT	Largest in the World	Largest in India
DCC	7,000 MT	Amongst Largest in the World	Largest in India
L-Ascorbyl Palmitate	450 MT	Second Largest in the World	Second Largest in India

Category-wise capacity and utilization

Location	Installed Production Capacity and Capacity Utilization as at and for the year ended (in metric tonnes)					
	December 31, 2019			December 31, 2020		
	Installed Capacity	Actual Production	% Utilization	Installed Capacity	Actual Production	% Utilization
Performance Chemicals	8,680	4,121	47.47%	9,640	5,045	52.33%
Pharmaceutical Intermediates	3,060	1,474	48.19%	4,060	1,847	45.49%
FMCG Chemicals	15,600	7,948	50.95%	16,200	8,786	54.23%
Total	27,340	13,543	49.53%	29,900	15,678	52.43%

Clean Science maintains two research and development laboratories on-site at its manufacturing facilities. Its research and development efforts are broadly classified into three categories: 1) optimizing existing products and catalysts to increase yields and selectivity; 2) expanding the variety of stabilizers and additives; and 3) identifying high-demand items produced by a small number of small-scale manufacturers in India and abroad. The company's focus has evolved steadily toward intermediate applications in pharmaceuticals and agrochemistry. It employs a total of 36 people in research and development, second only to production, indicating the company's dedication. Clean Science has not protected its processes from copying, and hence may face strong competition if competitors replicate them effectively. However, given the company's established market position across the anisole value chain, a new entrant would face significant competition for many years before scaling up.

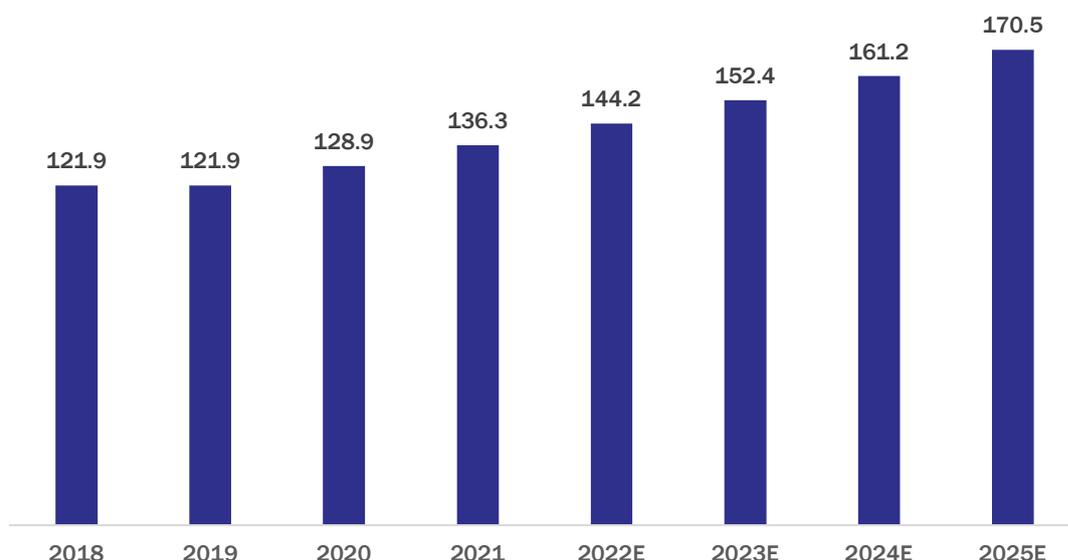
Performance Chemicals

Performance chemicals accounted for 69 percent of Clean Science's total revenue and increased at a 34.3 percent compound annual growth rate to Rs3.5bn between FY18 and FY21. The company's division is comprised of its two flagship products, MEHQ and BHA. 57 percent of additional revenue growth in performance chemicals over the last three years has come from MEHQ, where the business has acquired considerable market share.

Monomethyl ether of hydroquinone (MEHQ)

MEHQ is an organic molecule and a synthetic hydroquinone derivative. Additionally, it is referred to as mequinole, 4-hydroxy anisole, and para-guaiacol. MEHQ is synthesized by the hydroxylation of anisole or via the interaction of p-benzoquinone with methanol in the presence of oxygen. MEHQ is used in a variety of industrial applications, including as a polymerization inhibitor, dermatology, agrochemicals, ink, and as a precursor for the production of BHA. MEHQ has two primary applications: 1) It is employed as a polymerization inhibitor in the synthesis of a variety of monomers, including acrylics, methacrylic, and other acrylates, vinyl acetate monomers, and unsaturated polyesters. MEHQ is also utilized in cosmetics, liquid detergents, and cellulose products as a stabilizer. 2) It serves as the foundation for the agrochemical and organic chemical industries. The global MEHQ market is anticipated to reach US\$122 million in 2019 and develop at a 5.8% compound annual growth rate (CAGR) between 2019 and 2025. MEHQ demand is anticipated to be 12.5ktpa, expanding at a 5.2 percent compound annual growth rate during the same time.

Global MEHQ market (USD Mn)



MEHQ's growth is mostly driven by acrylic acid growth. Acrylic acid consumption is predicted to expand at a CAGR of 5.2 percent between 2019 and 2025. Acrylic acid is a substantial component of superabsorbent polymers (SAP), which are used to manufacture diapers for infants, adult incontinence products, and feminine hygiene products.

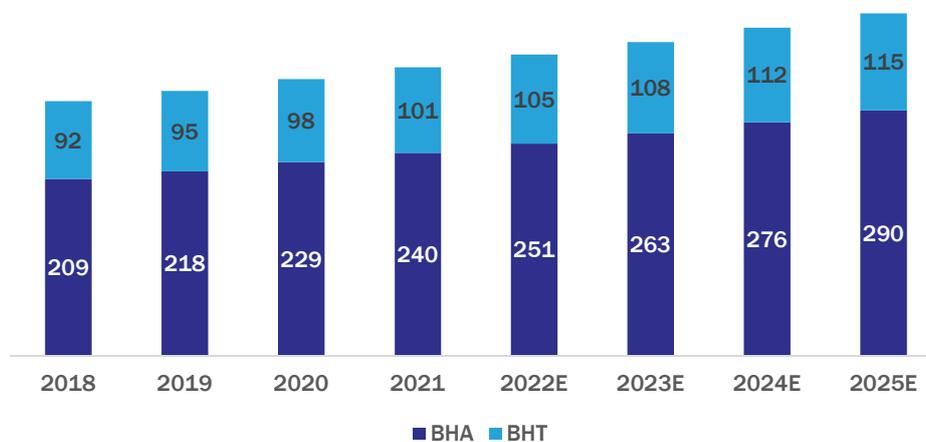
Clean Science is the largest manufacturer of MEHQ in the world, accounting for 55% of worldwide capacity. Solvay SA and Camlin Fine Sciences are two more significant producers. MEHQ is synthesized by Clean Science using the anisole method, which utilizes hydrogen peroxide, acetone, and zeolite-based catalysts. Guaiacol is produced as a byproduct of the process, which is sold to pharmaceutical intermediates. The alternate pathway is via diphenol, which results in the formation of hydroquinone and catechol. MEHQ, TBHQ, and BHA are synthesized using hydroquinone, whereas guaiacol is synthesized using catechol.

Butylated hydroxy anisole (BHA)

Antioxidants are chemicals that prevent other molecules from oxidizing. Antioxidants come in a variety of forms, including vitamin E, vitamin C, BHT, BHA, propyl gallate, and ethoxyquin. Antioxidants are utilized to prevent the destruction of important substances such as vitamins, lipids, and pigments. Additionally, these compounds have the power to enhance the shelf life and durability of the items. BHA is an antioxidant that helps prevent food from becoming rancid (rancidification causes obnoxious odors). It has the E-number E320 and is a waxy solid. It was introduced as an antioxidant in 1947 and is currently found in a range of foods, including drinks, ice cream, confectionery, baked goods, instant mashed potatoes, edible fats and oils, morning cereals, dry yeast, and sausages. By interacting with oxygen, it inhibits deterioration. It retards the oxidation-induced development of off-flavors, smells, and color changes. The antioxidants market was valued at US\$3.5 billion in 2019 and is expected to increase at a 6.3 percent compound annual growth rate over the next five years. Food and drinks are their primary use, followed by medicines.

Animal feed is a significant market for antioxidants, projected at US\$243 million in 2020 and expected to rise at a CAGR of 4.8 percent over the next five years. Antioxidants are utilized as animal feed additives for a variety of reasons, including preventing cell damage and reducing singlet oxygen. Synthetic antioxidants dominate the industry, accounting for more than 55% to 60% of the worldwide market. BHA is frequently used in the animal feed business, and BHT is often combined with BHA to increase efficiency due to BHT's lower heat stability.

Global BHT & BHA market (USD Mn)



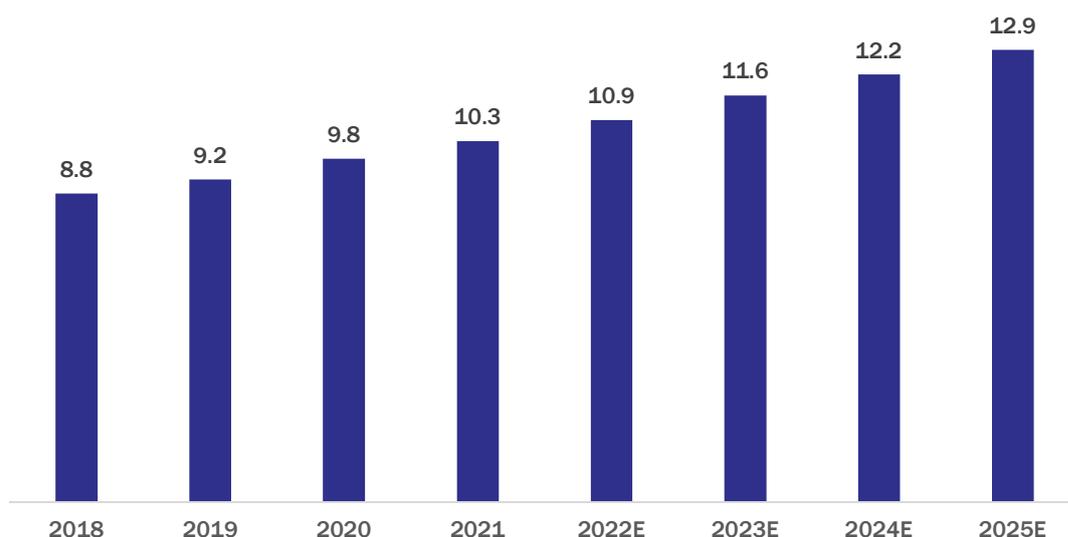
The primary danger to the BHA market is the ongoing disagreement about whether BHA is a human carcinogen or not. The National Toxicology Program categorized BHA as a probable human carcinogen; nevertheless, the International Cancer Agency classed it as a potential human carcinogen, and it is listed as a carcinogen under California's initiative 65. The United States Food and Drug Administration regulates the use of BHA in commercial food products to a maximum of 0.02 percent in fat and oil-based goods. Solvay SA, Camlin Fine Sciences, and Clean Science are the three largest makers of BHA on a global scale.

Abscorbyl palmitate

Ascorbyl palmitate (AP) is derived from ascorbic acid, which is also known as vitamin C. Ascorbic acid is widely utilized in anti-aging cosmetics in the form of sodium ascorbate, or AP. AP is a vitamin C derivative that is a component of anti-aging active compounds. Both AP and BHA have antioxidant properties and are used in personal care products. Antioxidants serve two purposes in cosmetic preparations: 1) as active substances and 2) as oxidation inhibitors for other compounds. Three antioxidants – selenium, vitamin E, and vitamin C – have been shown to significantly reduce the effect of the sun on the skin and protect it from future harm.

Globally, the AP market is expected to reach US\$10 million by 2020 and increase at a 5.8% compound annual growth rate over the next five years. Growth would be driven mostly by significant underlying growth in the anti-aging ingredients industry, which is expanding as the population ages. Additionally, Clean Science is the second largest maker of AP in India, behind Yasho Industries, DSM Nutrition Products, and Camlin Fine Sciences. Shandong Huihai Pharma, Hongrui Fine Chemicals, and Tianxin Pharmaceutical Co. are the leading producers in China.

Global Abscorbyl palmitate market (USD Mn)



Hindered amine light stabilizers

HALS are a class of chemicals that include an amine functional group and are employed as UV stabilizers, notably in plastics. When plastics/polymers are exposed to sunlight or other UV radiation for an extended period of time, they breakdown and the chemical structural stability of polymers begins to deteriorate. HALS do not absorb UV light but work to limit polymer breakdown by continually and cyclically eliminating free radicals generated during polymer photooxidation. The great efficiency and endurance of HALS are a result of this cyclical process, in which HALS are regenerated rather than consumed during the stabilization process. HALS are also increasingly being employed as thermal stabilizers, particularly at low and moderate temperatures; nevertheless, they remain less effective than typical phenolic antioxidants during high temperature processing of polymers (e.g. injection molding). HALS are particularly effective against polyolefins, polyethylene, and polyurethane, but are useless against polyvinyl chloride (PVC). HALS is used in a variety of applications including packaging films, automotive, agriculture, and construction.

Since their development in the late 1970s, HALS have garnered considerable market interest for their superior light stability and application performance, as well as their synergistic impact with UV absorbers and antioxidants. Although the HALS compounds available varies significantly in structure, they all have the 2,2,6,6-tetramethylpiperidine ring structure. According to Market Data Forecast ([link](#)), the HALS market is expected to reach US\$1.24 billion in 2021 and increase at an 8.2% compound annual growth rate between 2021 and 2026.

BASF, Clariant, SABO (Italy), Solvay, Adeka Corp (Japan), Chitec Technology (Taiwan), Everspring Chemical (Taiwan), Everlight Chemical (Taiwan), Sunshow (China), Addivant (US), and others are among the key companies. The whole HALS family is geared for the inhibitor market. India currently imports 3ktpa of the 770 HALS series, and Clean Science has added 1.5ktpa capacity to serve as a substitute for imports.

Phenothiazine (PTZ)

Phenothiazine (PTZ) is a heterocyclic chemical molecule that belongs to the thiazine class. Phenothiazine is a classic medicinal chemistry lead structure. Phenothiazine derivatives are extremely bioactive and are widely used in medicines. Chlorpromazine and its derivatives, promethazine and chlorpromazine, respectively, revolutionised the worlds of psychiatry and allergy therapy. Methylene blue, an older derivative, was one of the earliest antimalarial medications. Clean Science intends to expand its capacity for phenothiazine to 5ktpa in its third facility, indicating that the company's interest is more focused on its use as an anaerobic inhibitor of acrylic acid polymerisation, which is frequently used as an in-process inhibitor during acrylic acid purification. This product has a high degree of overlap with MEHQ consumers and provides an opportunity for Clean Science.

Pharmaceutical Intermediates

Pharmaceutical intermediates accounted for 16% of sales in FY21 and increased at an 18.7% compound annual growth rate to Rs830mn between FY18 and FY21. The segment benefits significantly from the creation of guaiacol, a byproduct of the MEHQ manufacturing process. It pioneered DCC, which has propelled Clean Science to global prominence over the last few years. It has recently begun producing veratrole. The company is in the midst of expanding its pharmaceutical product line, and import substitution represents a significant chance to compete with Chinese producers. Additionally, entry into phenothiazine enables Clean Science to manufacture intermediates for psychiatric and anti-allergic medications.

Guaiacol

Guaiacol is an organic molecule that occurs naturally and is utilized as a precursor in the production of vanillin and the synthesis of medicines. It is a cosubstrate for decreasing COX reactions and is mostly used as an expectorant and antiseptic. Guaiacol's distinctive fragrant odour makes it ideal for use as a perfumery and flavoring ingredient. Guaiacol and anethol are the primary basic ingredients used to make vanillin. Vanillin synthesized synthetically has been classified as lignin vanillin, guaiacol vanillin, and ethyl vanillin. Guaiacol vanillin is the largest category, accounting for 85% of the entire vanillin market. Guaiacol is a precursor of expectorants such as guaifenesin and sulfoguaiacol. Guaiacol derivatives are used to synthesize muscle relaxants and cardiovascular medicines such as methcarbamol, carvedilol, and ranolazine.

The global guaiacol market is predicted to be worth US\$309 million and is expected to develop at a CAGR of 1.3 percent between 2019 and 25. The global capacity of guaiacol is estimated to be 60ktpa, with Solvay being the major manufacturer. Camlin Fine Sciences is the leading manufacturer in India, followed by Clean Science. However, Clean Science has a minor presence in the vanillin sector and focuses on medicines.

Dicyclohexylcarbodiimide (DCC)

DCC is an efficient dehydrating agent that is used to produce amides, esters, and anhydrides. Additionally, it is employed in the production of peptides and nucleic acids. Additionally, it is a reagent in anti-retroviral medications. DCC is a critical starting material in the production of APIs such as valaciclovir, amikacin, and glutathione. Unlike competitors that create DCC using standard techniques, Clean Science manufactures DCC without the use of carbon disulphide, resulting in sulphur-free DCC. Antiretroviral medicines are those used to treat HIV, and DCC is frequently used as one. The global DCC market was worth US\$66 million in 2020 and is predicted to increase at a 4.9 percent compound annual growth rate (CAGR). Clean Science is the world's largest manufacturer of DCC, followed by Shandong Huihai Pharma (China) and Hongrui Fine Chemicals (China). Atul Ltd. also supplies on a made-to-order basis in India. Clean Science now holds a 4-5 percent market share in the worldwide DCC industry.

Veratrole 3 (1,2-Dimethoxybenzene)

Clean Science has shifted to a vapor phase production process for anisole, and over the last few years has established sufficient capacity for both domestic and worldwide markets. This is a considerably more efficient method of manufacturing anisole than the previous liquid phase plant. This has rendered the company's liquid phase facility obsolete, however it has been partially used to produce veratrole. Veratrole serves as a starting material for the organic synthesis of other aromatic compounds. Due to its high electron density, it quickly undergoes electrophilic substitution. It is used in the agricultural and medicinal sectors.

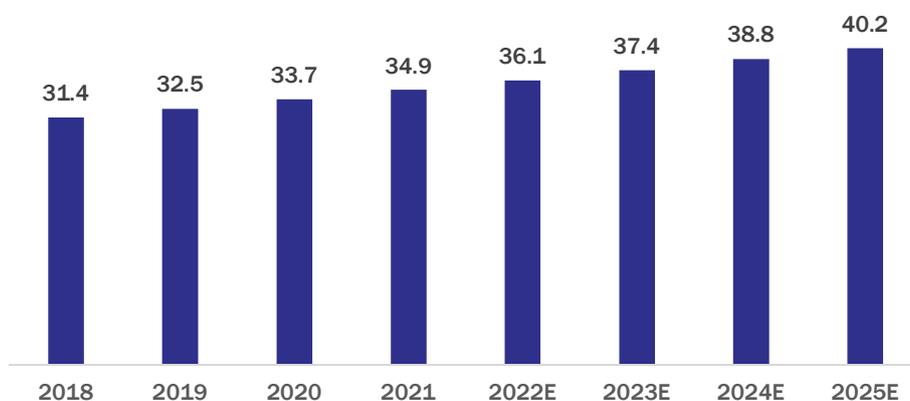
FMCG Chemicals

Clean Science's FMCG chemicals business expanded significantly with the addition of anisole, which was aided further by the advent of the vapor phase process. While the category grew at a CAGR of 24% to Rs632mn between FY18 and FY21 and contributed 12% to revenues, it has been static for the last two years. This should have been the outcome of the end-cosmetic industry slowing down as a result of the Covid-induced lockout.

Acetophenone-4-Methoxy (4-MAP)

4-MAP is an aromatic chemical molecule having a sweet, fruity, nutty, and vanilla-like scent. 4-MAP sometimes has a buttery or caramelly scent. It is a cigarette addition, a scent, a component of UV filter manufacturing, and a food flavoring. It is primarily used as a chemical intermediary in the manufacture of cosmetic ingredients such as avobenzene. It is one of the most often used UV filters in sunscreens since it is capable of filtering out the complete spectrum of UV radiation. The global 4-MAP market was worth US\$34 million in 2020 and is predicted to expand at a 3.6 percent compound annual growth rate over the following five years. The demand is mostly driven by the underlying expansion of the UV filter industry, which is predicted to expand at a 3.2 percent compound annual growth rate over the same period. Clean Science is the world's largest manufacturer of 4-MAP. Additionally, the product is manufactured by HaiNing Sino Fine Chemical Co (China) and Cosmos Nanjing (China).

Global 4-MAP market (USD Mn)



Anisole

Anisole, or methoxybenzene, is a colorless liquid having an anise seed aroma. It is an ether that serves as a precursor for the formation of other synthetic chemicals. Anisole is an intermediate in the production of fragrances, insect pheromones, and medicines.

The global anisole market was worth US\$85 million in 2019 and is expected to increase at a 5.0 percent compound annual growth rate (CAGR) between 2019 and 2025. Demand was at 34ktpa and was increasing at a CAGR of 4.5-4.8 percent. Clean Science is the world's largest producer of anisole, accounting for between 45 and 55% of worldwide capacity. Solvay, Atul Ltd, and Westman Chemicals are competitors. Clean Science recently changed to a vapor phase manufacturing process for anisole, which has resulted in considerable cost savings and is one of the primary drivers for margin expansion over the last few years.

Investment Theme

1. Green chemistry is the process of designing chemical products and processes that use as few harmful ingredients as possible or none at all. Green chemistry is applied throughout the lifecycle of a chemical product, from design to manufacture, use, and final disposal. Businesses are actively developing novel approaches to pollution reduction. Modifications might be significant, such as completely modifying the chemistry, or as simple as replacing a catalyst to reduce the carbon footprint. The pharmaceutical sector was one of the early adopters of green chemistry due to the significant cost and risk reduction opportunities. In 2026, the green pharmaceuticals sector is estimated to reach a value of US\$96 billion. The chemical industry has created essential criteria for assessing chemistry's environmental effect, including the E-factor, process mass intensity (PMI), atom economy, number of processes, and carbon footprint. While the E-factor was the industry's original statistic, big pharma's preferred measure is the PMI. PMI is the mass of all materials required to create a product divided by the mass of the completed product. Clean science, as the name indicates, is focused with novel ways (based on size-selective catalysts, or zeolites). These processes resulted in the elimination of sulphur from the manufacturing of compounds such as anisole and DCC. Additionally, the firm has significantly reduced waste (i.e. increased yield), which translates into a higher PMI score. Clean Science's green methods are the major differentiator from the competitors, as well as the primary appeal for customers, since they enable them to improve their green factor.

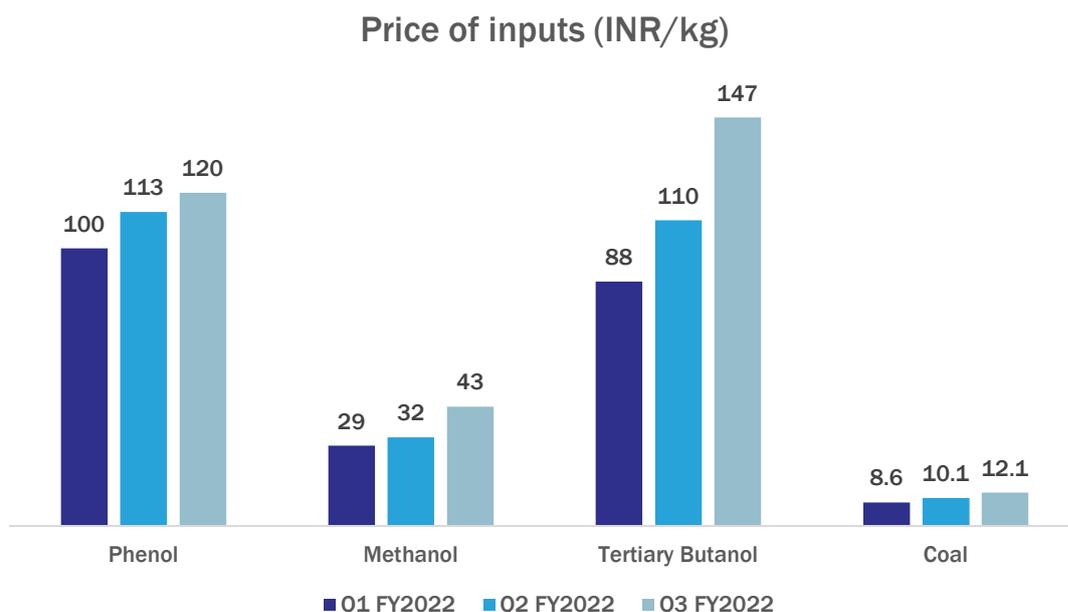
2. Clean Science offers significant economic benefits owing to enhanced yield or lower co-products, reduced effluents (as a result of in-house catalytic operations), and fewer side reactions (which helps increase the efficiency of manufacturing processes). Additionally, the manufacturing processes use far less solvents and reagents, cutting the cost of raw materials. Additionally, the firm is vertically integrated, meaning it acquires all materials in bulk. It is able to reduce the volatility of end-product pricing through backward integration. For example, unlike the competition, which begins with diphenol (a non-bulk commodity), Clean Science begins with phenol (for anisole value change). When Clean Science switched to vapour-phase anisole production in 2017, the firm saw a considerable rise in earnings (from liquid-phase). Acquiring premium clients requires a substantial market share, and these premium clients are ready to pay a premium for reliability and consistency. Clean Science was able to do this more swiftly since their product (anisole) was manufactured in a green manner; the lack of sulphur contributed to the product's greater purity as compared to rivals.

3. Due to the lower utilisation / efficiency of the new goods, we predict that gross margins will be lowered. Given the benchmark company's margins are among the highest in the industry, expecting it to sustain that level of profitability through all new product launches would be ridiculous. However, the firm is certain that margins will increase in new items as well due to product maturity, acquisition of premium paying clients who demand time to onboard (due to product testing, audit, and link with current supplier), and process improvement. Additionally, the company's primary new product series, HALS, will be manufactured using bulk raw materials (acetone and ammonia); nevertheless, it remains to be seen if the company can reach an anisole-like advantage for present items (for which it purchases phenol).

Q3 FY22 Concall Highlights

- CLEAN said that it would continue to expand its Indian and international consumer base as it adds more goods to its basket and so gains new customers in the Indian and international markets.
- Commissioned plants for manufacturing PBQ (Para benzoquinone), BHA and TBHQ. PBQ is an import substitute with Clean Science being the only company in India to manufacture PBQ.
- PBHQ used as a stabiliser in edible oils. The main reason to produce this is that all the customers who buy BHA need PBHQ to complete the basket and hence will increase their package to the same customer.
- Amongst all the raw material and freight cost increase, the company was able to pass most of the price increase to the customer but they are contracted until December and the new contract that will start in January shows further price improvements.
- Despite end product price hike, gross margins impacted as raw material price increase was steeper during Q3. Other key factors impacting margins are coal prices and moderation in product mix with pharma segment share significantly higher in Q3 compared to Q2.

	Q3 FY2022	Q2 FY2022	Q3 FY2021
Sale of products	100.0%	100.0%	100.0%
Raw Material	35.5%	31.7%	24.3%
Gross Margin	64.5%	68.3%	75.7%
Power & Fuel	9.9%	7.9%	6.8%



- PBQ has a strong presence in India, where it is in low supply due to the fact that only two players manufacture it in China. TBHQ has strong export potential and will complement AFFLE's present product portfolio of BHA and ascorbyl palmitate.
- AFFLE would want to add another product called phenothiazine to its antioxidant portfolio. Phenothiazine is a critical antioxidant, but the firm has not been successful in creating this technology yet. However, the corporation is actively pursuing it.
- India imports 70 tonnes of PBQ each month, although AFFLE's capacity is just 40 tonnes. The firm has chosen to proceed in two stages. The facility is complete, but only phase I of around 40 tonnes has been installed. Because the firm is confident in its product, it has placed an order for Phase 2, which will double the capacity to 80 tonnes in approximately three months.
- Cash capex of ~INR 110 crore cumulatively during 9M FY2022, all funded from internal accruals. Capex will increase further once the company's Unit 4 begins operations, which is a greenfield project on a 3-4-acre area. As a result, it will be one of the largest capital expenditures in the company's history, amounting to more than INR200 crore every annum.
- DCC is the least used facility at this moment, operating at around 30% to 35% of capacity. The remainder of the items operate at a rate of greater than 65-70 percent.
- The company has already achieved a 50% ramp up in BHA, and a 40% ramp up in MEHQ. And the new capacity will be utilized at a rate equal to the old capacity plus 1.4 times. AFFLE anticipates utilizing 50-60 percent of increased capacity in the first year, except for new goods.

Financials

Sensex: 543318

Nifty: CLEAN

Market Cap:

CMP: Rs. 20,282 Cr.

52 week range: ₹1,422.10 - ₹2,705.00

Ratios

D/E: 0.00

RoE (%): 45%

RoCE (%): 60.5%

Valuations

P/E: 92.50

P/BV: 31.12

EV/EBITDA: 63.95

Div. Yield (%): 0.0%

Shareholding pattern

	Jun '21	Sep '21	Dec '21
Promoters	94.65	78.51	78.51
FIs	0.00	3.88	5.05
DIs	0.77	4.73	4.28
Public	4.58	12.88	12.16

Income Statement

Narration	Dec-20	Sep-21	Dec-21	QoQ growth%	YoY growth %
Sales	125.43	153.16	180.81	18.1%	44.2%
Expenses	62.92	84.42	104.69	24.0%	66.4%
Operating Profit	62.51	68.74	76.12	10.7%	21.8%
Other Income	7.07	8.61	7.45	-13.5%	5.4%
Depreciation	4.67	6.11	6.00	-1.8%	28.5%
Interest	0.09	0.01	-		
Profit before tax	64.82	71.23	77.57	8.9%	19.7%
Tax	15.75	17.71	19.60	10.7%	24.4%
Net profit	49.06	53.52	57.98	8.3%	18.2%
OPM	50%	45%	42%	-6.2%	-15.5%

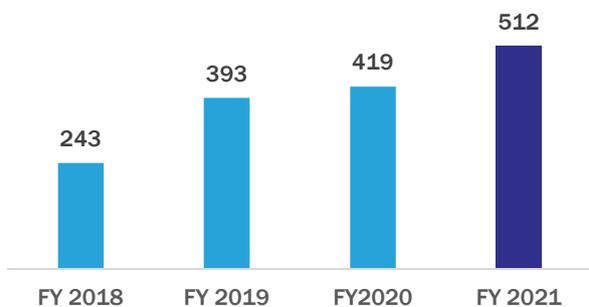
Balance Sheet

Narration	Mar-20	Mar-21	YoY growth %
Equity Share Capital	1.33	10.62	698.50%
Reserves	341.12	529.39	55.19%
Borrowings	2.69	0.33	-87.73%
Other Liabilities	85.09	119.91	40.92%
Total	430.23	660.25	53.46%
Net Block	165.58	185.85	12.24%
Capital Work in Progress	3.42	54.99	1507.89%
Investments	134.09	232.57	73.44%
Other Assets	127.14	186.84	46.96%
Total	430.23	660.25	53.46%
Working Capital	42.05	66.93	59.17%
Debtors	69.83	74.23	6.30%
Inventory	34.59	52.90	52.93%
Debtor Days	60.79	52.87	-13.02%
Inventory Turnover	12.12	9.69	-20.09%
Return on Equity	41%	37%	-9.92%
Return on Capital Emp	59%	60%	2.56%

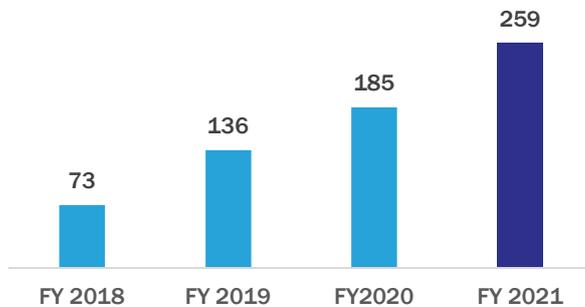
Cash Flow Statement

Narration	Mar-20	Mar-21	YoY growth %
Cash from Operating Activity	160.03	193.09	20.66%
Cash from Investing Activity	-105.89	-186.07	-175.72%
Cash from Financing Activity	-55.43	-5.89	-10.63%
Net Cash Flow	-1.29	1.13	87.60%

Revenue
(CAGR of 28%)



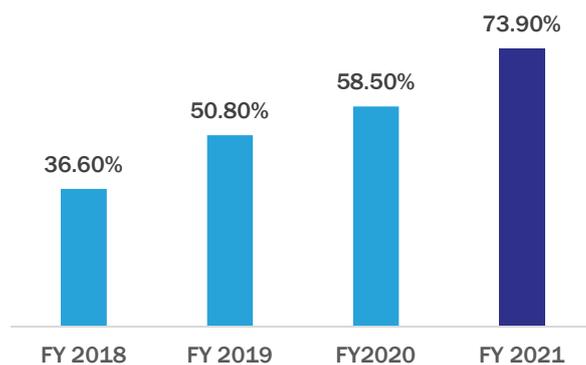
EBITDA
(CAGR of 52%)



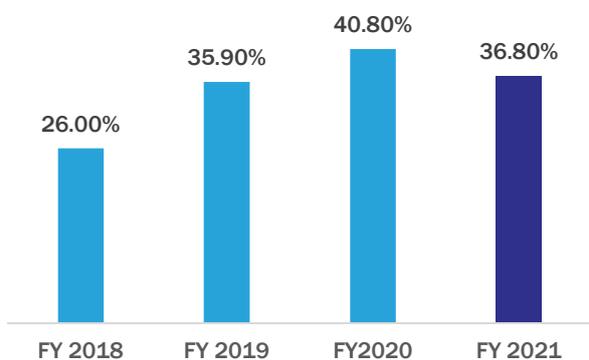
PAT
(CAGR of 59%)



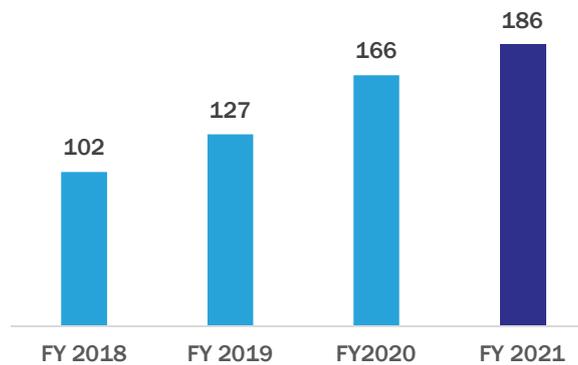
ROCE



RoNW



Net FA



SWOT Analysis

Strength	Weakness	Opportunity	Threats
<ul style="list-style-type: none"> • CSTL is the world's biggest manufacturer of four of the seven items it produces, making it a market leader. • It has developed solid and long-term ties with its customers. Several consumers have been with the firm for more than ten years. 	<ul style="list-style-type: none"> • Performance Chemicals, particularly MEHQ, account for the lion's share of CSTL's overall income. Any decrease in demand might have an effect on the company's revenues. • The top ten clients account for 48% of CSTL's overall income. If a single client leaves, CSTL's sales are likely to suffer. 	<ul style="list-style-type: none"> • CSTL is increasing its capacity by at least 20,000mt for both existing and new goods. • There are significant prospects to consolidate our position in India and to develop our sales and distribution networks in foreign markets. 	<ul style="list-style-type: none"> • None of the company's catalytic techniques are patented, and others may simply be able to replicate them. • Domestic rivals' capacity increase will put downward pressure on CSTL's present strong margins.

Key Risks

- MEHQ accounts for 50% of total revenue and is used as a polymerisation inhibitor in acrylic acids. It is principally used in the manufacture of acrylic fibre, paints and inks, adhesives, and super absorbent polymers. In FY19-21, segmental growth remained at a CAGR of 12%. Any decrease in end-user industry demand or an increase in competition might be detrimental to the business's overall growth.
- Historically, it generated a significant amount of revenue from a few numbers of markets, including China, India, Europe, and the Americas. Due to the scarcity of rivals in the same industry segment in China, any technical advancements there might reduce the growth prospects and have an adverse effect on corporate performance.
- The top ten customers account for 48% of total revenue, while the top client accounts for 13% of total revenue. Customer loss or reduced company development from significant clients as a result of fierce competition can stymie corporate growth.

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CIN No. U74999WB2019PTC229938