

India

Underweight (no change)

Highlighted Companies

Clean Science and Technology

REDUCE, TP Rs665, Rs1538 close

Clean Science's MEHQ business is under stress (spreads are at an eight-year low) and HALS' margins are even lower. As a result, it is margin-dilutive, with the gross margin for non-captive HQ at 30%, compared to the overall gross margin of Vinati Organics at 50% and that of Clean Science at 66%. We have a REDUCE rating on Clean Science with a target price of Rs665.

Vinati Organics

ADD, TP Rs2772, Rs1935 close

Butyl phenols, guaiacol and anisole will start contributing meaningfully from FY26F, driving a 20% revenue CAGR over FY24-27F. We believe that higher EPS growth compared to the last three years (24% CAGR vs. -3% CAGR) deserves a 10% premium to the last five-year mean P/E. We upgrade the stock's rating to ADD with a 12-month target price of Rs2,772.

Summary Valuation Metrics

P/E (x)	Mar24-A	Mar25-F	Mar26-F
Clean Science and Technology	66.97	60.84	62.41
Vinati Organics	62.03	46.06	38.14
P/BV (x)	Mar24-A	Mar25-F	Mar26-F
Clean Science and Technology	14.18	11.76	10.09
Vinati Organics	8.11	7.16	6.26
Dividend Yield	Mar24-A	Mar25-F	Mar26-F
Clean Science and Technology	0%	0%	0%
Vinati Organics	0.37%	0.5%	0.6%

Chemicals - Overall

Food antioxidants – A big fortress to win

- Developing antioxidant blends is the only way to ensure high margins in the long term, as TBHQ, BHA, and BHT are commodities when sold individually.
- The global synthetic antioxidant blends market is worth ~US\$700m, growing @7-8%. Asia Pacific and North America are the biggest markets for blends.
- Unfortunately, the companies in our coverage universe are not in this business. It's important to note that this business takes at least 4-5 years to develop.

Antioxidant blends are key to sustaining higher margins in long term

Most Indian companies, like Clean Science and Technology (Clean Science) and Vinati Organics are venturing into commodity-grade antioxidants such as TBHQ and butyl phenols. It's important to remember that these are commodities with highly volatile spreads, and customers are not particularly loyal. In contrast, food-grade antioxidant blends have high entry barriers. While it's true that mastering this trial-and-error technology takes four-to-five years, once a product is approved by a client, the said company is unlikely to switch suppliers for lower prices. On the other hand, selling individual antioxidants like TBHQ, BHA, or BHT does not generate customer loyalty, as these chemicals are treated like phenol or any other bulk chemical.

Clean Science in a Catch-22 situation vis-a-vis TBHQ & blends biz

Clean Science has all the base chemicals and technology in place, with an efficient manufacturing process for BHA. However, for TBHQ, the company must import costly HQ. Producing HQ domestically requires the capability to sell catechol at profitable prices. It's worth noting that Camlin Fine Sciences (UNRATED, another HQ manufacturer) doesn't even recover the raw material costs from catechol sales. To make the HQ business profitable, the ability to produce vanillin is essential, but that's not easy. This puts Clean Science in a catch-22 situation: its base MEHQ margins are collapsing, developing the blends business will take time, using imported HQ for TBHQ production is not highly profitable, and making HQ domestically is viable only if it can produce vanillin, which again requires significant efforts and time. Please note that Camlin Fine Sciences can leverage its blends business as a foundation to sell vanillin, which Clean Science currently lacks.

We like Vinati for its ATBS, blends are not even on the distant horizon

We like Vinati Organics for its rebounding ATBS and IBB businesses. The company is also developing multiple new products like MEHQ and guaiacol. The butyl phenol business is promising as well, although it remains a commodity in nature. The key difference between Clean Science and Vinati Organics is the monopoly that the latter enjoys in ATBS (Vinati Organics can produce the highest purity ATBS, which is difficult for new entrants to match). In contrast, Clean Science has no such exclusive product. All Clean Sciences' products are commodities and can be easily replicated. A case in point is MEHQ—remember, Vinati Organics is using the same method to produce MEHQ that Clean Science uses.

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Figure 1: Our EPS estimates show significant variations compared to the consensus

Company Name	Rating	Target Price (Rs)	INCRD' s Estimates			Consensus Estimates	
			FY24	FY25F	FY26F	FY25F	FY26F
Aarti Industries	REDUCE	435	12.1	14.5	17.4	16.9	23.1
Ami Organics	REDUCE	714	21.9	22.8	24.1	29.0	43.0
Astec Lifesciences	REDUCE	778	-12.1	-4.8	7.8	9.5	37.3
Clean Science and Technology	REDUCE	665	23.0	25.3	24.6	28.2	36.7
Deepak Nitrite	REDUCE	1,514	57.5	55.7	59.3	69.1	88.1
Gujarat Fluorochemicals	REDUCE	1,946	39.6	48.3	64.5	76.0	107.0
Laxmi Organic Industries	REDUCE	168	3.9	5.1	6.3	5.5	6.9
SRF	REDUCE	1,540	45.1	46.5	52.3	53.4	72.9
UPL	ADD	694	-36.3	6.7	34.7	20.0	40.0
Vinati Organics	ADD	2,772	31.2	42.0	50.7	38.4	50.6

SOURCE: INCRD RESEARCH, COMPANY REPORTS

Food antioxidants – A big fortress to win

Food antioxidants business

The **food antioxidants business** is largely a **B2B industry**, where antioxidants are sold in bulk to food manufacturers, processors, and other businesses involved in food production. These antioxidants help extend shelf life, improve food quality, and prevent spoilage, but they are not sold directly to consumers. Instead, consumers encounter them as part of the ingredients in the processed foods they buy.

What is a food antioxidant? ➤

A **food antioxidant** is a substance added to food products to prevent or slow down oxidation, a chemical reaction that can cause food to spoil, lose flavour, or degrade in nutritional value. Oxidation typically affects fats and oils in food, leading to rancidity, changes in colour, and the deterioration of overall quality. Antioxidants help preserve food by stabilizing these molecules, thus extending shelf life, maintaining freshness, and preserving the food's appearance and flavour.

There are two primary types of food antioxidants ➤

1. **Natural antioxidants:**
 - A. They are derived from natural sources like plants and animals. Common examples include **Vitamin C (ascorbic acid)**, **Vitamin E (tocopherols)**, and **rosemary extracts**.
 - B. Natural antioxidants are increasingly in demand due to consumer preferences for clean-label, minimally processed, and natural food products.
2. **Synthetic antioxidants:**
 - A. These are chemically synthesized and widely used in processed foods. Common examples include:
 - BHA (butylated hydroxyanisole)
 - BHT (butylated hydroxytoluene)
 - TBHQ (tertiary butylhydroquinone)
 - Propyl gallate
 - B. Synthetic antioxidants tend to be more stable, cost-effective, and efficient in protecting food products, particularly those with a higher fat content.

What are the common uses of food antioxidants? ➤

1. **Oils and fats:** To prevent rancidity in cooking oils, margarine, and butter.
2. **Processed meats:** To maintain colour and freshness in products like sausages, bacon, and cured meats.
3. **Snack foods:** Chips, crackers, and baked goods that contain fats and oils often use antioxidants to stay fresh.
4. **Beverages:** Antioxidants may be added to juices and drinks to maintain their colour and flavour.
5. **Packaged foods:** Frozen, ready-to-eat meals, cereals, and snacks often contain antioxidants to preserve their quality over time.

The food antioxidants business is primarily B2B (Business-to-Business) ➤

1. **Suppliers to food manufacturers:** Companies that produce antioxidants, such as **Clean Science**, **Camlin Fine Sciences**, **BASF**, and **IFF (DuPont)**, generally sell these antioxidants to food manufacturers, processors, and packagers. These food companies incorporate antioxidants into their products to extend shelf life and ensure quality.

2. **Custom blends:** Many companies that produce antioxidants also offer **customized antioxidant blends** tailored to the specific needs of different food products. These custom formulations are not typically sold directly to consumers but are provided to food manufacturers to integrate into their production lines.
3. **Bulk sales:** Antioxidants are usually sold in **large quantities** to businesses, such as ingredient suppliers, food processors, or even pharmaceutical and cosmetic companies that use antioxidants in their products.

The global food antioxidants business size is ~US\$1.3bn ➤

The global food antioxidants market is a growing segment driven by increasing demand for processed and packaged foods, rising consumer awareness about food quality, and the need to extend the shelf life of perishable products. The global food antioxidants market is valued at around US\$1.3bn annually.

Increased demand for processed foods can lead to a 10% CAGR over the next four years ➤

Several factors contribute to the growth of the global food antioxidants market:

- **Increased demand for processed foods:** The rising consumption of processed and packaged foods, especially in emerging economies, is driving the need for food preservation solutions like antioxidants.
- **Expansion of the food and beverage industry:** The rise of global food supply chains, along with consumer demand for convenience foods, is fuelling the need for food antioxidants to maintain product quality during storage and distribution.

There are two types of food antioxidants ➤

The market consists of two main types of antioxidants:

- A. **Synthetic antioxidants:** These include BHA (butylated hydroxyanisole), BHT (butylated hydroxytoluene), and TBHQ (tertiary butylhydroquinone). Despite being cost-effective and efficient, they face regulatory scrutiny amid growing consumer preference for natural alternatives.
- B. **Natural antioxidants:** Their examples include Vitamin E (tocopherols), Vitamin C (ascorbic acid), and plant extracts like rosemary. Natural antioxidants are gaining market share due to the clean-label trend and consumer preference for minimally processed foods.

North America is the largest food antioxidants market ➤

- A. **North America (market size of ~US\$600m):** One of the largest markets, driven by the high consumption of processed foods and snacks. It accounts for a significant share of the global market.
- B. **Europe (market size of ~US\$300m):** Also a large market, where the demand for natural antioxidants is particularly strong due to strict regulations and consumer preferences for cleaner labels.
- C. **Asia-Pacific (market size of ~US\$300m):** This region is experiencing rapid growth due to rising disposable incomes, increasing urbanization, and a growing demand for processed and packaged foods in countries like China and India.
- D. **Latin America, Middle East & Africa (market size of ~US\$100m):** These regions are emerging markets with growing demand for antioxidants, especially in the food and beverage sector.

Asia Pacific and North America are the fastest growth markets for food antioxidants >

Asia-Pacific is expected to post a CAGR of 6% to 8%, driven by the rapid growth of its food processing industry and consumers' shift toward processed foods and natural ingredients. North America is also projected to post a CAGR of 4% to 6%, with the demand primarily driven by the rising use of natural antioxidants and regulatory changes surrounding synthetic additives.

Normally, the following food & beverage items need antioxidants >

Food antioxidants are widely used in several food categories:

- A. **Fats and oils:** To prevent rancidity and maintain stability.
- B. **Meat and poultry:** To preserve colour and prevent spoilage.
- C. **Bakery and confectionery:** To extend shelf life by preventing the oxidation of fats.
- D. **Beverages:** Antioxidants are used to stabilize beverages, including fruit juices and drinks.
- E. **Snacks and ready-to-eat meals:** These products often contain oils and fats that are prone to oxidation, and so antioxidants are used to maintain their freshness.

Synthetic food antioxidants and blends

The synthetic food antioxidants market is valued at around US\$500m to US\$700 m and is expected to post a CAGR of 5% over the next few years. Synthetic antioxidants such as BHA, BHT, TBHQ, and propyl gallate are widely used in processed foods to prevent oxidation and extend shelf life, especially in cost-sensitive regions and industries. It's important to note that manufacturing BHA, TBHQ, BHT, and propyl gallate is not a particularly difficult process, as the necessary chemistry and technology are readily available. However, the key to success lies in mixing these chemicals in the right proportion, which is often a trial-and-error process. Strong R&D capabilities, adequate time, customer collaboration, a well-established distribution network, and proximity to customers for timely feedback are critical requirements for succeeding in the antioxidants business. All these factors contribute to high entry barriers in the blends segment of the market.

Following are the key players in the global synthetic food antioxidant market >

Some of the leading companies in the global food antioxidant market include:

- A. Camlin Fine Sciences
- B. BASF SE
- C. Archer Daniels Midland (ADM)
- D. DuPont (now a part of IFF)
- E. Kemin Industries
- F. Koninklijke DSM N.V.
- G. Eastman Chemical Company

BHA, TBHQ, BHT etc. are critical chemicals for synthetic food antioxidants market >

Common synthetic food antioxidants include:

- A. **BHA (butylated hydroxyanisole):** Widely used in preserving fats, oils, and snack foods.
- B. **BHT (butylated hydroxytoluene):** Often used in conjunction with BHA and is effective in preventing rancidity in oils and fats.
- C. **TBHQ (tertiary butylhydroquinone):** Primarily used in fats and oils to prevent oxidative deterioration.
- D. **Propyl gallate:** Often used alongside BHA and BHT to prevent the oxidation of fats and oils in food products.

Multiple Indian companies manufacture these chemicals >

Several Indian companies are involved in the production of synthetic food antioxidants such as BHA (butylated hydroxyanisole), BHT (butylated hydroxytoluene), TBHQ (tertiary butylhydroquinone), and propyl gallate. These companies primarily cater to the food, pharmaceutical, cosmetics, and chemical industries.

1. Camlin Fine Sciences Ltd. (CFS) (UNRATED)

- Products: BHA, BHT, TBHQ, and propyl gallate.
- Overview: CFS is a leading global player in antioxidants and specializes in food additives, including synthetic antioxidants. The company is one of the most prominent manufacturers of BHA, BHT, TBHQ, and propyl gallate in India and has a significant export market.
- Applications: CFS antioxidants are used in food preservation, animal feed, flavours and fragrances, and industrial applications.
- Global reach: CFS has a strong global presence and exports its antioxidants to various international markets.

2. Clean Science and Technology Ltd. (REDUCE)

- Products: BHA and propyl gallate
- Overview: Clean Science and Technology is a major player in the Indian specialty chemicals industry, with a focus on green and sustainable chemistry. The company manufactures BHA and propyl gallate for food, pharmaceutical, and industrial applications.
- Sustainability focus: The company uses environmentally friendly processes to manufacture its products and is gaining a foothold in both domestic and international markets.

3. VDH ChemTech Pvt. Ltd. (UNRATED)

- Products: BHT
- Overview: VDH ChemTech is a chemical manufacturer that specializes in various food additives and antioxidants. The company produces BHT for use in food, pharmaceuticals, and industrial products.
- Applications: BHT from VDH ChemTech is widely used in food preservation, cosmetics, and animal feed.

4. Yasho Industries Ltd. (UNRATED)

- Products: BHT and TBHQ
- Overview: Yasho Industries is a diversified specialty chemical manufacturer in India, producing a wide range of chemicals, including BHT and TBHQ. The company serves the food, rubber, lubricants, and personal care industries.
- Global Presence: Yasho Industries exports its products to several international markets in Asia, the Americas, and Europe.

5. Vinati Organics Ltd. (ADD)

- Products: TBHQ

- Overview: Vinati Organics is primarily known for its specialty chemicals, particularly ATBS and IBB, but it also manufactures TBHQ as part of its portfolio of food additives and antioxidants.
 - Market: The company serves the food processing and chemical industries, both in India and globally.
- 6. Meghmani Organics Ltd. (UNRATED)**
- Products: BHT
 - Overview: Meghmani Organics is a diversified chemical company involved in agrochemicals, pigments, and food additives. It manufactures BHT, which is used in food preservation and other applications.
 - Applications: BHT is used in food products to prevent oxidation and improve shelf life.
- 7. Shree Krishna Industries (UNRATED)**
- Products: Propyl gallate
 - Overview: Shree Krishna Industries is a specialized manufacturer of propyl gallate, an antioxidant used in food and cosmetics. The company produces propyl gallate in various grades to meet the needs of different industries.
 - Applications: Its products are used in food preservation, cosmetics, and pharmaceuticals.
- 8. Anmol Chemicals Group (UNRATED)**
- Products: BHA, BHT, TBHQ, and propyl gallate
 - Overview: Anmol Chemicals Group is an established player in the Indian specialty chemicals market and manufactures a range of antioxidants, including BHA, BHT, TBHQ, and propyl gallate. The company supplies these products to the food, pharmaceutical, and cosmetics industries.
 - Global exports: Anmol Chemicals Group has a strong export market and supplies antioxidants to clients worldwide.

However, what is key to make antioxidants is the ability to mix these chemicals in the right proportion, as per customer demand ➤

The ability to mix synthetic antioxidants like BHA, BHT, TBHQ, and propyl gallate in the right proportion is key to success in the food antioxidant industry. This capability allows manufacturers to offer tailored solutions that meet specific customer requirements, optimize performance, ensure regulatory compliance, and maintain food product integrity. Companies that excel in custom blending, quality control, and collaboration with their clients have a distinct advantage in this competitive market.

Mastering this art can take a long time and is often a trial-and-error process ➤

The trial-and-error process of mastering antioxidants blending is a long-term commitment that involves balancing science, regulatory requirements, customer preferences, and real-world product behaviour. It requires an in-depth understanding of the chemistry of oxidation, food matrices, and processing conditions. Companies that succeed in this space often do so through years of experimentation, continuous R&D, and close collaboration with customers to fine-tune their solutions to meet specific needs.

R&D skills, time, customer collaboration, distribution network, and being close to customers for easy feedback are the big requirements for making antioxidants >

Mastering the art of creating custom antioxidant blends is indeed a complex and time-consuming process, often requiring years of experience and a deep understanding of chemistry, food science, and specific product needs. The process is far from straightforward and involves a lot of trial and error, particularly because every food product has its own unique composition, and external factors such as storage conditions, temperature, packaging, and processing methods all impact the effectiveness of antioxidants. Here are the reasons why it takes time and requires trial and error:

1. Complex food matrices:

- Food products are made up of complex matrices involving fats, proteins, carbohydrates, and other elements. Each component interacts differently with antioxidants, which means a blend that works well in one product may not perform optimally in another.
- For example, fats and oils are highly prone to oxidation, requiring antioxidants that can handle lipid peroxidation, whereas meats may require a different balance to preserve their colour and flavour. Testing multiple combinations is essential to find the right mix for each specific matrix.

2. Synergistic effects:

- Antioxidants often work synergistically, which means their combined effects are greater than the sum of their parts. Achieving the right synergy between antioxidants like BHA, BHT, and TBHQ takes experimentation. An incorrect proportion could result in one antioxidant overpowering the other or reducing the overall effectiveness.
- Finding the perfect ratio often involves repeated trials to determine how these chemicals work together under different storage conditions, product compositions, and shelf-life requirements.

3. External variables:

- **Processing conditions** such as **heat**, **moisture**, and **light exposure** can significantly impact how antioxidants function. For example, antioxidants must maintain their efficacy through high-temperature processing like frying or baking, which often degrades lesser stable compounds.
- Similarly, the packaging environment (e.g., oxygen exposure or vacuum sealing) plays a crucial role in how well antioxidants prevent oxidation. This means formulations need to be tested under real-world conditions to assess their effectiveness.

4. Regulatory constraints:

- In addition to optimizing blends for efficacy, manufacturers must also ensure that the antioxidant levels comply with regulatory limits. Each country or region has strict guidelines on the permissible levels of synthetic antioxidants in food products. Balancing effectiveness while adhering to regulatory constraints can take several iterations of testing and reformulation.

5. Flavour and sensory impact:

- Antioxidants, especially in a synthetic form, can sometimes impart unwanted flavour or alter the sensory profile of food products. For instance, excessive levels of BHA or TBHQ can introduce an off-taste or affect the mouthfeel of snacks, oils, or baked goods.
- This necessitates careful sensory testing alongside efficacy trials, adding another layer of complexity to the process. Each trial might focus on adjusting antioxidant levels to maximize protection while minimizing negative sensory effects.

6. Time-intensive testing:

- Stability testing to ensure that antioxidants remain effective over the intended shelf life is often a long-term process. It can take months to gather data on how

different blends hold up over time, requiring repeated trials to optimize the formulation. This is especially true for products with long shelf lives, such as snacks or preserved meats.

- Each blend may need to be tested under different conditions—such as accelerated shelf-life testing (with increased temperature and humidity) and real-time testing—to evaluate how well the antioxidant performs over time.

7. Customization for each client:

- No two clients have the same needs. For example, a snack food manufacturer might require a blend optimized for high-temperature frying, while a dairy producer may need a blend that works well in cold storage. Mastering this customization requires working closely with clients to understand their specific challenges, often involving several rounds of trials and fine-tuning.
- Some industries, like organic or clean-label products, will need natural antioxidant solutions, which can be even more difficult to formulate effectively compared to their synthetic counterparts.

8. Constant learning and innovation:

- The science behind antioxidants is continually evolving, and as food formulations change or new processing technologies emerge, manufacturers must continually revisit and refine their antioxidant strategies. What works today may need adjustments tomorrow due to new product formulations, consumer trends, or regulatory changes.
- Additionally, research into natural alternatives is becoming increasingly important, especially as more markets demand clean-label products. Developing blends that combine the efficacy of synthetic antioxidants with the consumer-friendly appeal of natural ingredients involves constant R&D and innovation.

9. R&D investments:

- Successful antioxidant manufacturers typically invest heavily in R&D labs where chemists and food scientists can conduct multiple rounds of trials. This investment in technology, knowledge, and equipment is critical to mastering the art of creating effective blends, but it requires time to get it right.

Hence, entry barriers are high in the antioxidant blends business ➤

Yes, the entry barriers in the food antioxidant blends business is indeed high, primarily due to the complexities involved in creating effective, customized blends and the various factors that contribute to long-term success in this field.

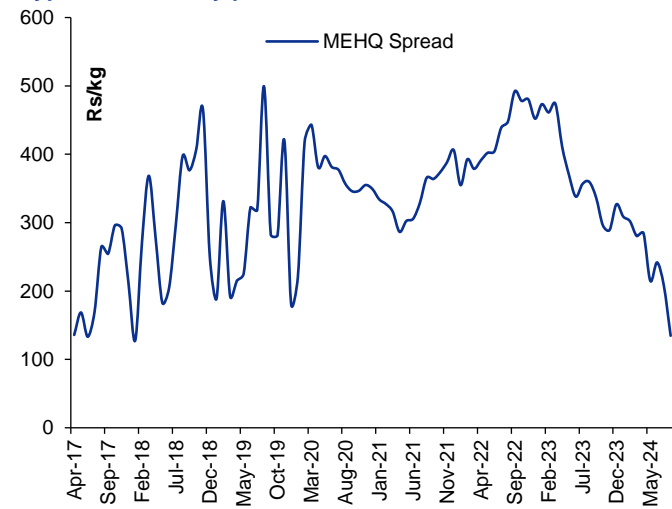
Clean Science and Vinati Organics are taking baby steps in the blends business

Clean Science, as well as Vinati Organics, are taking initial steps into the food blends business. While neither company has explicitly stated their objective to enter this space, they have at least begun to take the first few steps. Clean Science has started producing TBHQ, whereas Vinati Organics does not currently manufacture BHA, BHT, or TBHQ. However, the company has started manufacturing MEHQ, and it's possible that BHA production could follow as a forward integration step for MEHQ.

Most of the businesses of Clean Science are commodity in nature ➤

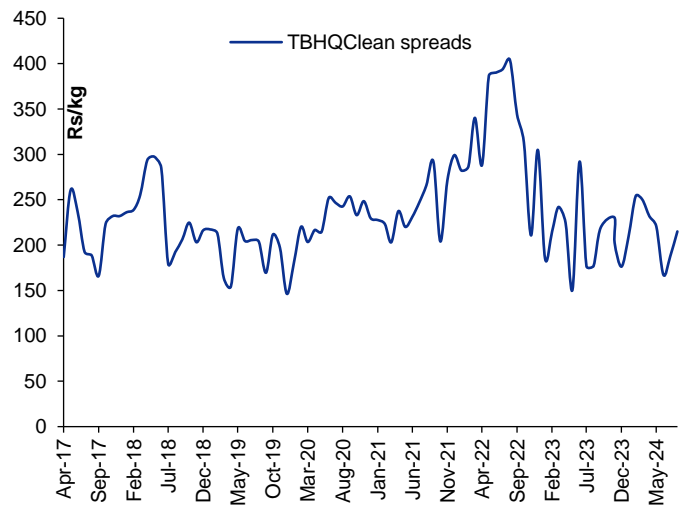
The company's TBHQ, MEHQ, HALS, AP (ascorbic palmitate) or 4-MAP (4-methoxy acetophenone) are all commodity businesses in nature. The same is visible in its volatile product spreads over the raw material.

Figure 2: As evident in the graph below, MEHQ spreads indicate a typical commodity pattern



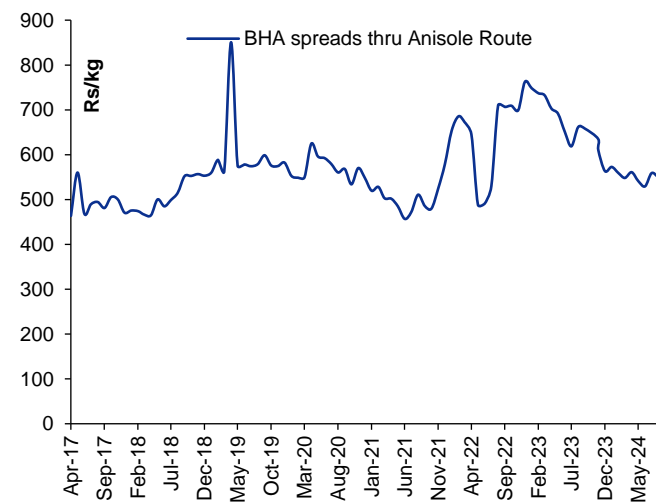
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 3: Similarly, TBHQ spreads are highly volatile



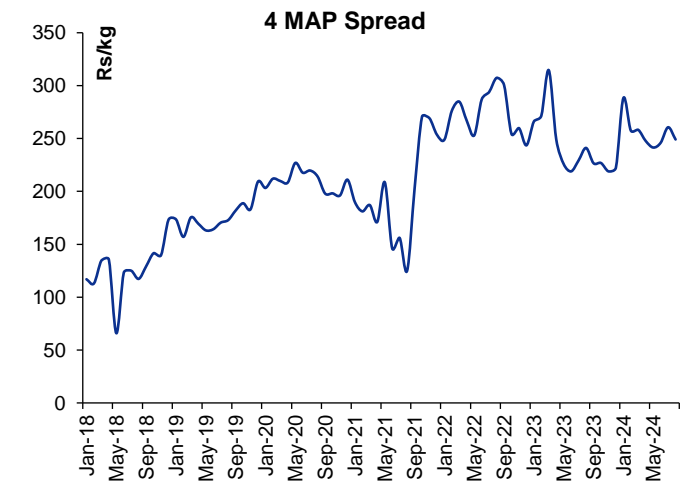
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 4: BHA spreads have been relatively steadier



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 5: While 4-MAP's spreads have not been as steady as that of BHA, but they are still much less volatile than MEHQ



SOURCE: INCRED RESEARCH, COMPANY REPORTS

We have written multiple reports on HALS, indicating its commodity nature ►

Please find the links of some of these reports below:

- [IN: Clean Science and Technology - HALS - much ado about nothing \(REDUCE\)](#)
- [IN: Clean Science and Technology - HALS - much ado about nothing-II \(REDUCE - Maintained\)](#)

The best strategy for Clean Science would be to venture into the blends business, which can ensure high margins over the long term ►

The rising prosperity and the food consumption pattern indicate that the synthetic antioxidant blends business will keep growing at a 6-8% CAGR in the Asia Pacific region. Rather than investing time and energy on the super commodity product like HALS, if Clean Science diversifies into the blends business then it will develop an insurmountable entry barrier.

Vinati Organics is still primarily an ATBS company and is a long way from developing antioxidant blends ➤

Vinati Organics is predominantly known for its ATBS (acrylamido tertiary-butyl sulfonic acid) business, which remains the company's core product. While it has diversified into other specialty chemicals, including antioxidants like TBHQ, the company's expertise and primary revenue generator heavily are still ATBS and IBB (isobutyl benzene).

Developing antioxidant blends is indeed a complex area, requiring R&D investments, technical expertise, and customer-specific solutions, which are areas that Vinati Organics has not yet fully ventured into. The company's focus is still more aligned with scaling and maintaining leadership in its established product lines, and is likely still far away from having a strong presence or expertise in antioxidant blends.

Camlin Fine Sciences is the only Indian company that has developed a significant blends business ➤

Camlin Fine Sciences (CFS) is the only Indian company that has developed a significant blends business, particularly in food antioxidants. The company has invested heavily in R&D and built strong capabilities in custom blending of synthetic and natural antioxidants, positioning itself as a key player both domestically and internationally. The company's ability to tailor antioxidant solutions to specific customer needs, combined with its global reach, sets it apart in this specialized sector, making it a leader in the Indian market for antioxidant blends.

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Recommendation Framework

Stock Ratings

Definition:

- Add** The stock's total return is expected to exceed 10% over the next 12 months.
- Hold** The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
- Reduce** The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings

Definition:

- Overweight** An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
- Neutral** A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
- Underweight** An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings

Definition:

- Overweight** An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
- Neutral** A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
- Underweight** An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.