

India

**Underweight** (no change)

**Highlighted Companies**

**Aarti Industries**

**REDUCE, TP Rs435, Rs583 close**

Aarti Industries has been heavily dependent on MMA due to its higher gross spreads compared to other molecules. However, the declining spreads of MMA are no longer beneficial. We maintain our REDUCE rating on the stock.

**Atul Ltd**

**REDUCE, TP Rs4971, Rs7690 close**

Atul's outlook appears decidedly negative. It is highly probable that the significant export volume of 2,4-D in 1QFY25 was largely in response to the anticipated countervailing duty (CVD) and anti-dumping (AD) measures. With these factors coming into effect, exports of 2,4-D are expected to face a downturn, starting as early as 3QFY25F. As a result, we expect a sustained decline in export activity. We retain our REDUCE rating on the stock.

**Summary Valuation Metrics**

P/E (x)	Mar24-F	Mar25-F	Mar26-F
Aarti Industries	48.24	40.25	33.55
Atul Ltd	64.89	52.5	41.57
P/BV (x)	Mar24-F	Mar25-F	Mar26-F
Aarti Industries	4.01	3.71	3.39
Atul Ltd	4.59	4.27	3.93
Dividend Yield	Mar24-F	Mar25-F	Mar26-F
Aarti Industries	0.43%	0.43%	0.43%
Atul Ltd	0.18%	0.23%	0.29%

# Chemicals - Overall

## Bulk chemicals – we prefer to be selective

- TAN, ammonia, soda ash, ABS, and PAN to do well due to favourable business dynamics, with the China stimulus serving as just one additional tailwind.
- Be cautious of refrigerant gases, ethyl acetate, epoxy resins, ECH, 2,4D, PDCB and MMA. The business dynamics are not favourable for them.
- We retain our REDUCE rating on Aarti Industries, and Atul. Tata Chemicals (UNRATED) and Styrenix (UNRATED) are likely to do well.

### Bulk chemicals – it's time to be selective

It's time to be cautious and very selective when it comes to bulk chemicals. While we are seeing a rally in stocks, the fundamentals are particularly favourable for the following chemicals: 1) ammonium nitrate (TAN), 2) soda ash, 3) phthalic anhydride (PAN), 4) acrylonitrile butadiene styrene (ABS), and 5) ammonia. Additionally, smaller chemicals like ATBS and vanillin are also in a better position. On the other hand, certain chemicals are facing serious headwinds, which include 1) ethyl acetate, 2) mono methyl aniline or MMA, 3) para di chloro benzene or PDCB, 4) 2,4 D, 5) epoxy resins, 6) pyridine, 7) epichlorohydrin or ECH, 8) R-134A, 9) R-22, 10) HFC-125, and 11) LiPF<sub>6</sub>. Bull markets often lead to the abuse of excel sheets, and in the process, the imagination runs wild. Companies like Epigral, Jubilant Ingrevia, and Gujarat Fluorochemicals are being driven by pure investor imagination about future earnings which has no relation to actual earnings. Stock prices are a different matter, and these stocks are not currently trading based on their earnings performance.

### China stimulus is just another tailwind for the chemicals we like

We were positive on soda ash, ammonia, ammonium nitrate, ABS and phthalic anhydride without any consideration of China stimulus (as three months ago no one knew about China stimulus). These commodities were doing good and their spreads were rising but now one more tailwind is there for them. Please see our earlier reports: 1) [IN: Chemicals - Overall - Ammonia's spreads over natural gas to rise](#), 2) [IN: Chemicals - Overall - Ammonium nitrate – fortune reversal is likely](#), 3) [IN: Chemicals - Overall - Soda ash upcycle is round the corner](#), 4) [IN: Chemicals - Overall - ABS and polystyrene are in a sweet spot](#), and 5) [IN: Chemicals - Others - Plasticizers & phthalic anhydride near bottom](#).

### Keep away from chemicals which can run only in stimulus trade

Chemicals like 1) ethyl acetate 2) mono methyl aniline or MMA, 3) para di chloro benzene or PDCB, 4) 2,4 D, 5) epoxy resins, 6) pyridine, 7) epichlorohydrin or ECH, 8) R-134A, 9) HFC-125, 10) LiPF<sub>6</sub>, and 11) phenol have no fundamental support in terms of business dynamics and favourable demand/supply. Their prices may bounce a bit from the bottom but won't stay for up long unless China's growth trajectory changes completely. While all these commodities and their manufacturers can provide near-term trading opportunities, the demand-supply equation is so convoluted that sustained high profitability is unlikely. We will turn sellers in companies that manufacture them if their stock prices rise.

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**Figure 1: Our ratings on select stocks**

Ticker	Company Name	Rating	Target Price (Rs)	INCRED' s Estimates			Consensus Estimates	
				FY24	FY25F	FY26F	FY25F	FY26F
SRF IN	SRF	REDUCE	1,540	45.1	46.5	52.3	53.4	72.9
PI IN	PI Industries	REDUCE	3,091	114.9	118.2	129.1	111.1	129.0
FLUOROCH IN	Gujarat Fluorochemicals	REDUCE	1,946	39.6	48.3	64.5	76.0	107.0
UPLL IN	UPL	ADD	694	-36.3	6.7	34.7	20.0	40.0
DN IN	Deepak Nitrite	REDUCE	1,514	57.5	55.7	59.3	69.1	88.1
VO IN	Vinati Organics	ADD	2,772	31.2	42.0	50.7	38.4	50.6
ARTO IN	Aarti Industries	REDUCE	435	12.1	14.5	17.4	16.9	23.1
CLEAN IN	Clean Science and Technology	REDUCE	665	23.0	25.3	24.6	28.2	36.7
EPIGRAL IN	Meghmani Finechem	HOLD	892	44.2	55.7	63.3	77.6	97.4
LXCHEM IN	Laxmi Organic Industries	REDUCE	168	3.9	5.1	6.3	5.5	6.9
AMIORG IN	Ami Organics	REDUCE	714	21.9	22.8	24.1	29.0	43.0
ASTEL IN	Astec Lifesciences	REDUCE	778	-12.1	-4.8	7.8	9.5	37.3

SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Bulk chemicals – we prefer to be selective

It's time to be cautious and very selective when it comes to bulk chemicals. While we are seeing a rally in stock prices, the fundamentals are particularly favourable for the following chemicals: 1) ammonium nitrate, 2) soda ash, 3) phthalic anhydride, 4) acrylonitrile butadiene styrene or ABS, and 5) ammonia. Additionally, smaller chemicals like ATBS and vanillin are also in a better position. On the other hand, certain chemicals are facing serious headwinds, including 1) ethyl acetate, 2) mono methyl aniline or MMA, 3) para di chloro benzene or PDCB, 4) 2,4 D, 5) epoxy resins, 6) pyridine, 7) epichlorohydrin or ECH, 8) R-134A, 9) HFC-125, 10) LiPF<sub>6</sub>, and 11) phenol.

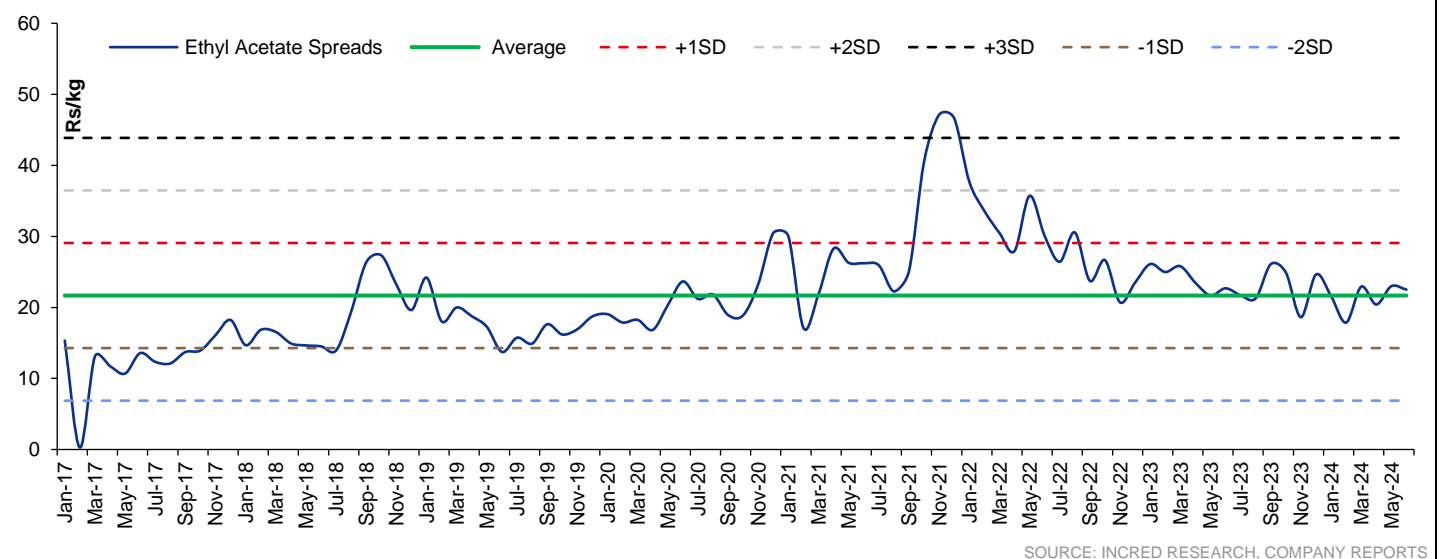
### Be cautious of narrative-driven bulk chemicals

Bull markets often lead to the abuse of excel sheets, and in the process, the imagination runs wild. Multiple bulk chemicals fall into this category. Companies like Epigral, Jubilant Ingrevia, and Gujarat Fluorochemicals are being driven by pure investor imagination about future earnings which has no relation to actual earnings. Stock prices are a different matter, as these stocks are not currently trading based on their earnings performance.

### Ethyl acetate - mix whisky and vinegar, and you can get small amounts of it, but the market still gives a 60x P/E to companies like Laxmi Organic Industries and Jubilant Ingrevia ➤

While mixing ethanol with vinegar won't produce ethyl acetate efficiently, it does highlight the simplicity of the reaction. There is essentially no entry barrier for this chemical. The market size is approximately 4-5mt, with China alone having a capacity of more than 4mt. Following the Covid-19 pandemic, there was a stocking-driven rally that resulted in extraordinary spreads over raw materials, but this rally was bound to fizzle out—and it has done just that.

**Figure 2: Ethyl acetate spreads are near their eight-year average; earnings based on these spreads should be used to value the stocks, which is ultimately best decided by investors; it's worth noting that the Bloomberg consensus estimates appear to be dreams built on excel sheets**



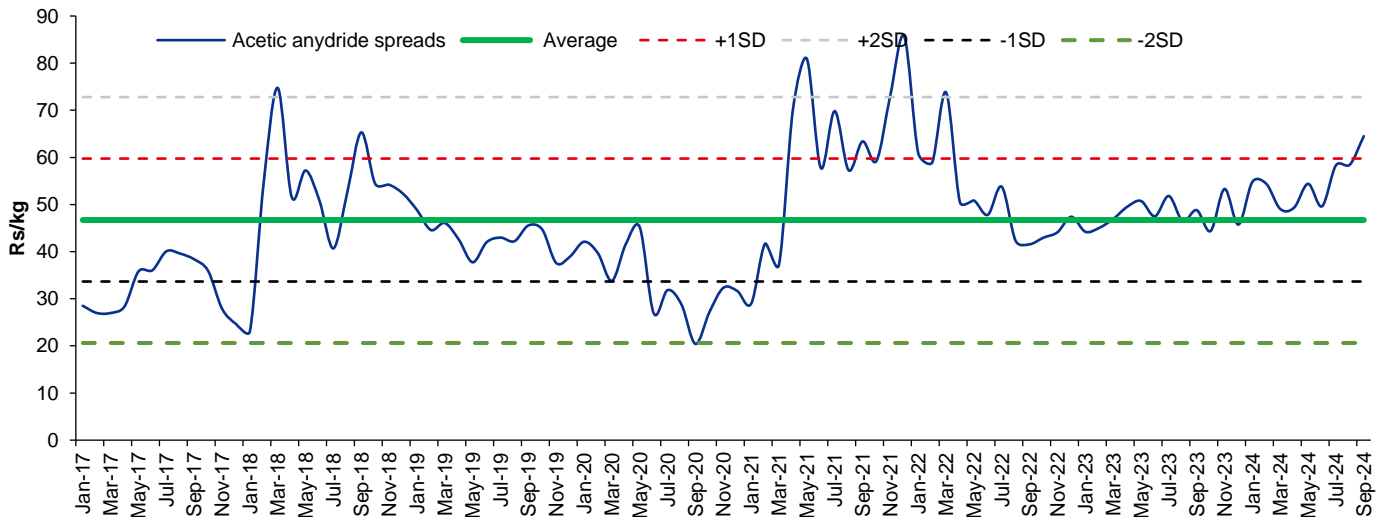
### Acetic anhydride is another chemical that is often laughably given 'specialty' status ➤

Acetic anhydride is often manufactured by carbonylation of methyl acetate. This is the most widely used process today, particularly because it allows for large-scale production in a cost-effective manner.

1. Reactants: Methyl acetate ( $\text{CH}_3\text{COOCH}_3$ ), carbon monoxide (CO), and a catalyst (typically a rhodium or iridium complex, such as iodide-promoted rhodium).
2. Reaction:  $\text{CH}_3\text{COOCH}_3 + \text{CO} \rightarrow \text{CH}_3\text{COOCH}_2\text{CO} \rightarrow (\text{CH}_3\text{CO})_2\text{O}$ .
3. Conditions: The process operates at high pressure (20-40atm) and moderate temperatures (170-200°C).
4. Catalyst: Rhodium or iridium complex catalysts with an iodide promoter.

This method has replaced the older routes because it is more efficient and uses readily available feedstocks, such as methanol and carbon monoxide.

**Figure 3: Currently, acetic anhydride is performing well but as it is one of the simplest commodities, it is uncertain how long spreads above +1 standard deviation can be maintained**

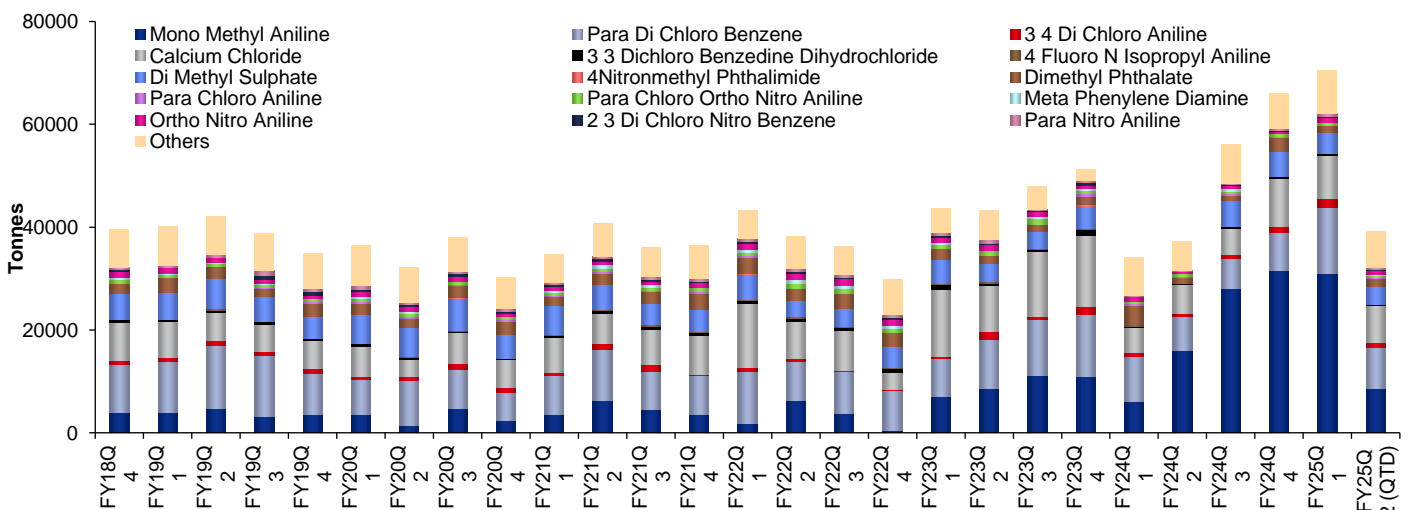


SOURCE: INCRED RESEARCH, COMPANY REPORTS

**MMA (mono methyl aniline) is another commodity that has reached a 60-70x P/E multiple; however, reality has set in, and Aarti Industries' stock price has collapsed**

All the earnings estimates from the consensus and Aarti Industries' management were driven by overly optimistic assumptions regarding MMA sales. Please refer to our earlier report for further details: ([IN: Chemicals - Overall - Mono methyl aniline – peak is behind us](#)). As we previously highlighted, MMA sales are declining, and Aarti Industries will struggle to achieve even Rs12bn EBITDA in FY25F. With gasoline demand collapsing, UAE-based companies are expected to switch their product slate to diesel. It's important to note that the UAE has been the largest buyer of Aarti Industries' MMA.

**Figure 4: MMA exports are collapsing and so does Aarti Industries' exports**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 5: MMA exports to the UAE have also collapsed

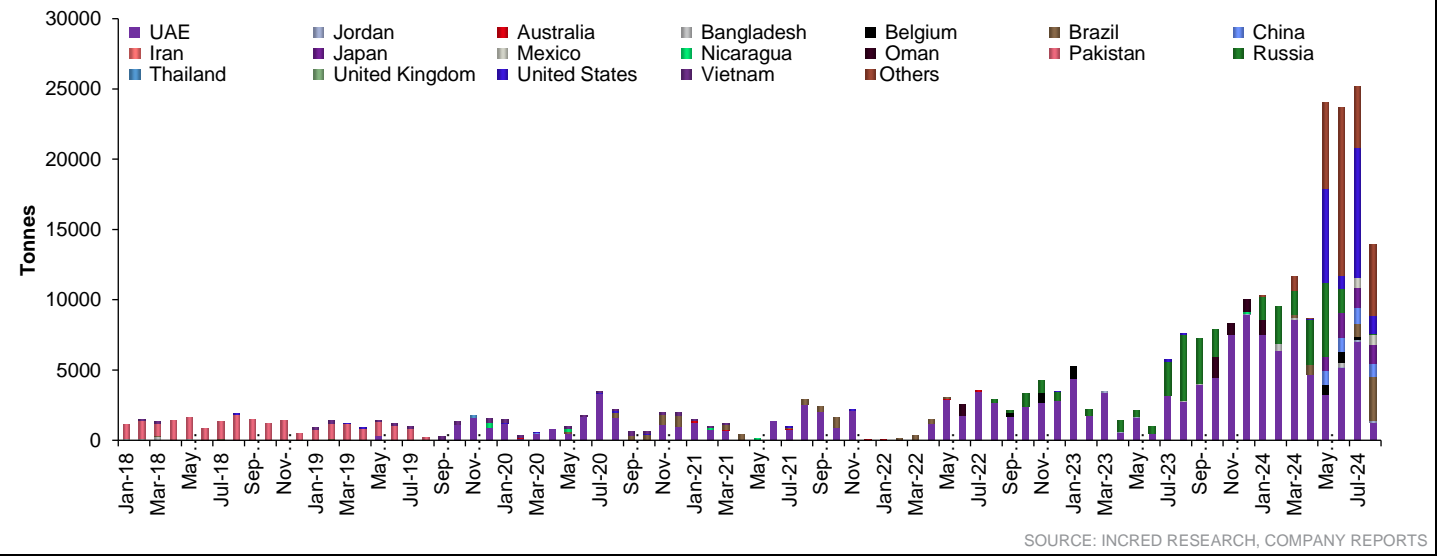
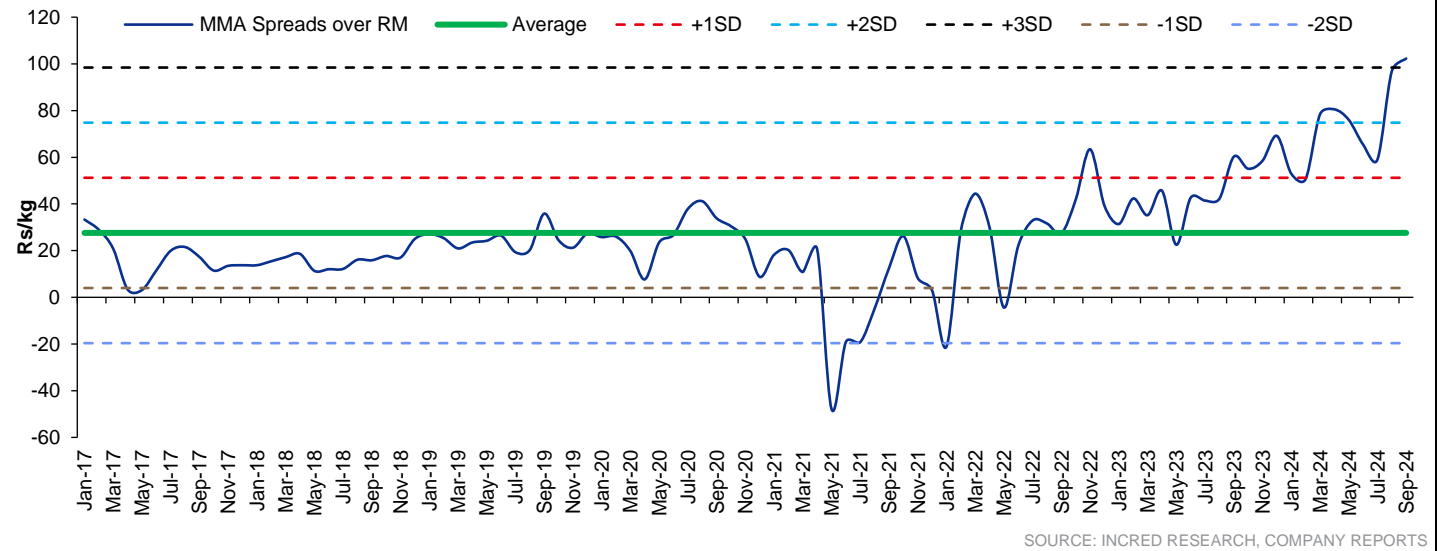


Figure 6: Spreads are still high but as demand wanes, they will collapse as well



**ECH (epichlorohydrin) is another commodity where the equity valuation of its manufacturers defies common sense ➤**

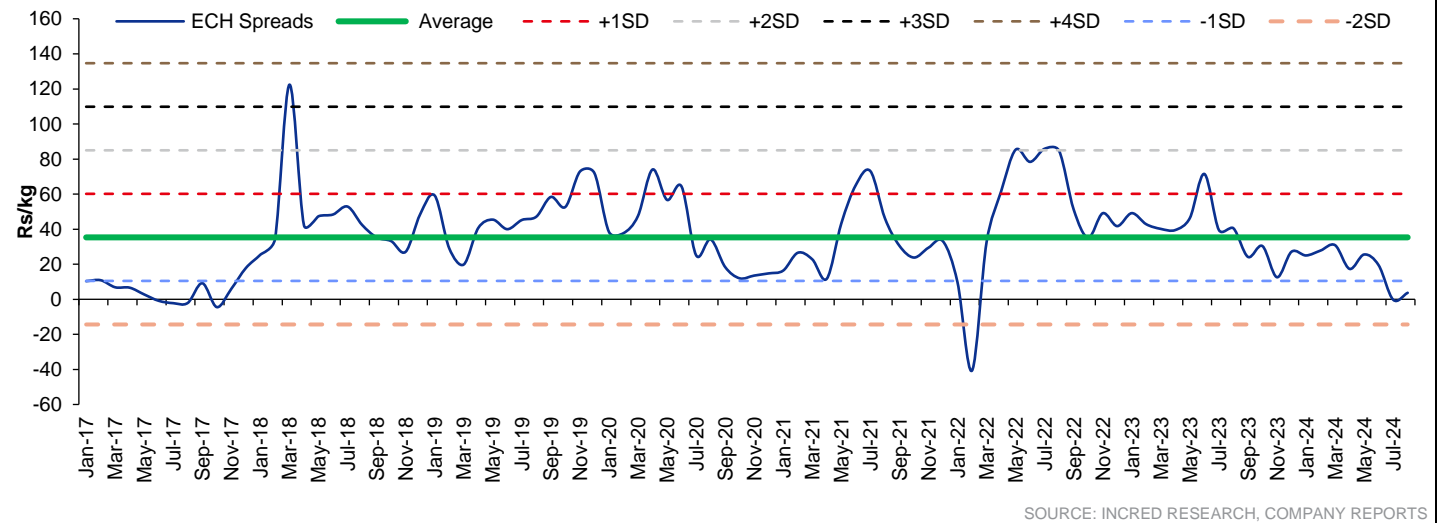
A more recent, sustainable method of producing ECH involves the use of glycerol, a by-product of biodiesel production. The key steps in this process are:

- **Glycerol chlorination:** Glycerol reacts with hydrogen chloride to form dichlorohydrins.
- **Dehydrochlorination:** Dichlorohydrins are then dehydrochlorinated to produce ECH.

This bio-based method is considered greener as it reduces the reliance on fossil fuels and lowers the environmental footprint, with fewer harmful byproducts and lower energy consumption.

Indian manufacturers like Epigral produce ECH (epichlorohydrin) using the glycerine method, with glycerine being imported. Recently, its spreads have collapsed, but the stock price has doubled in the last two-to-three months.

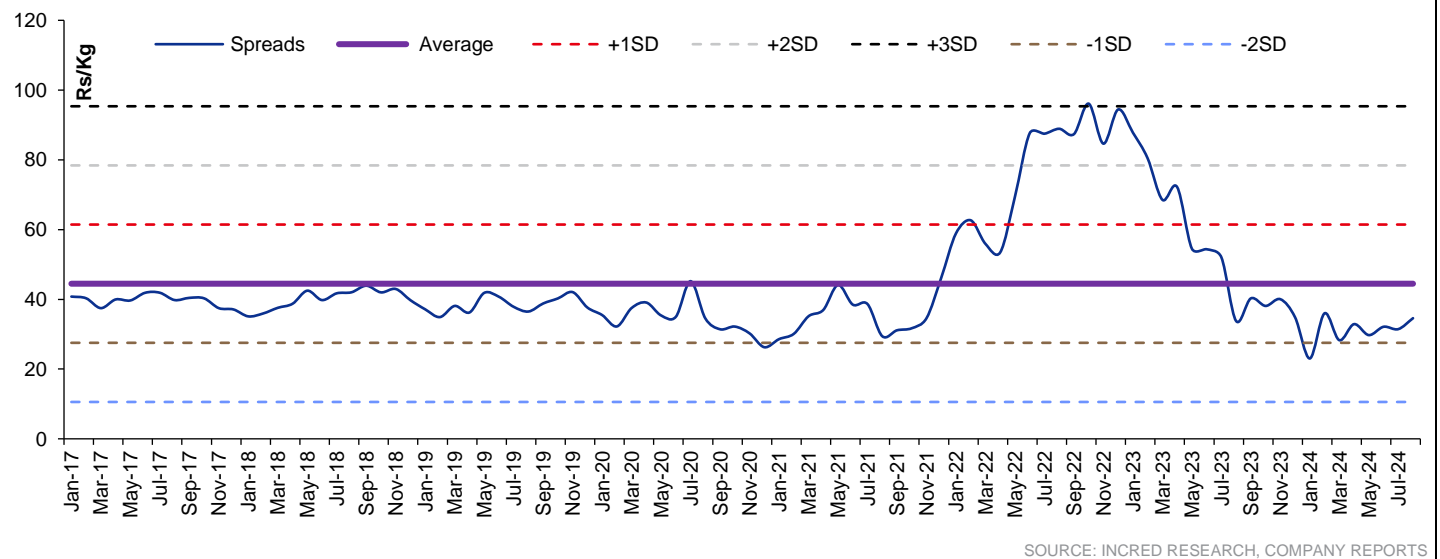
**Figure 7: ECH spreads have collapsed, but Epigral (its manufacturer) has seen its stock price double in the last few months**



As per recent estimates, global ECH production capacity is between 3.0MMT to 3.5MMT (million metric tonne) per year. This includes both traditional petrochemical-based processes (propylene route) and bio-based production (glycerine route). China is the largest producer of ECH, accounting for roughly 45% to 50% of the global capacity. Chinese manufacturers have continued to expand their capacities, especially to support their robust epoxy resin industry. As with all commodities, the price of ECH is heavily influenced by China's actions. Recently, China has dumped ECH in the global market, leading to a collapse in its prices.

**PDCB (para dichlorobenzene) is another basic commodity with collapsing spreads ➤**

**Figure 8: PDCB (para dichlorobenzene) is another basic commodity with collapsing spreads**



**The global slowdown is exerting additional pressure on gross profits of epoxy resins ➤**

The global production capacity for epoxy resins is estimated to be around 4-5MMT annually. The global demand for epoxy resins is estimated to be approximately 3.5-4MMT annually.

Epoxy resin is manufactured through a chemical reaction known as epoxide polymerization.

**Base raw materials:** The two primary raw materials used to make epoxy resins are:

1. **Epichlorohydrin (ECH):** It is usually derived from petroleum or bio-based sources like glycerol.
2. **Bisphenol-A (BPA):** It is a chemical compound primarily produced from phenol and acetone.

**Reaction process:** The manufacturing process involves reacting **epichlorohydrin (ECH)** with **bisphenol-A (BPA)** to form the epoxy resin. The steps are as follows:

1. **Reaction of bisphenol-A with epichlorohydrin**

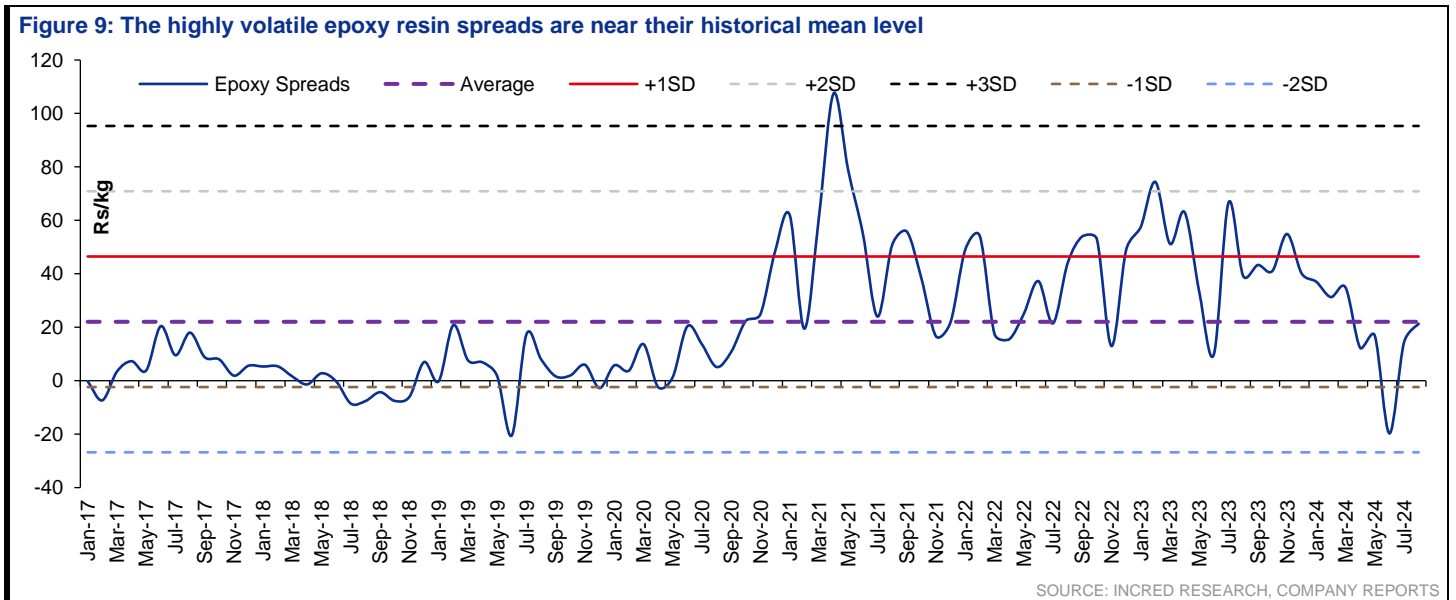
Bisphenol-A reacts with epichlorohydrin in the presence of a catalyst (typically a base like sodium hydroxide).

The reaction results in the formation of a diglycidyl ether of bisphenol-A (DGEBA), which is the most common form of epoxy resin.

2. **Polymerization**

After the initial reaction, the product is subjected to further polymerization and cross-linking to adjust the molecular weight and properties of the resin.

By controlling the degree of polymerization, manufacturers can adjust the viscosity and toughness of the final resin.



**Phenol is an oversupplied simple commodity, but its manufacturer (Deepak Nitrite) trades at 60x P/E ➤**

The phenol capacity was 15.65mtpa in 2022 and is expected to increase at a CAGR of more than 3% over 2022-2027F. In 2022, China, the US, South Korea, Taiwan, and Germany were the key countries in the world accounting for over 68% of the total phenol capacity.

The global demand and supply of phenol is influenced by its use in various industries, such as plastics, automotive, electronics, and construction. Phenol is a key raw material used in the production of bisphenol-A (BPA), phenolic resins, caprolactam, and other chemicals.

The estimated global demand for phenol is ~12.5mt and demand is growing @4% CAGR. The demand is driven by the following factors:

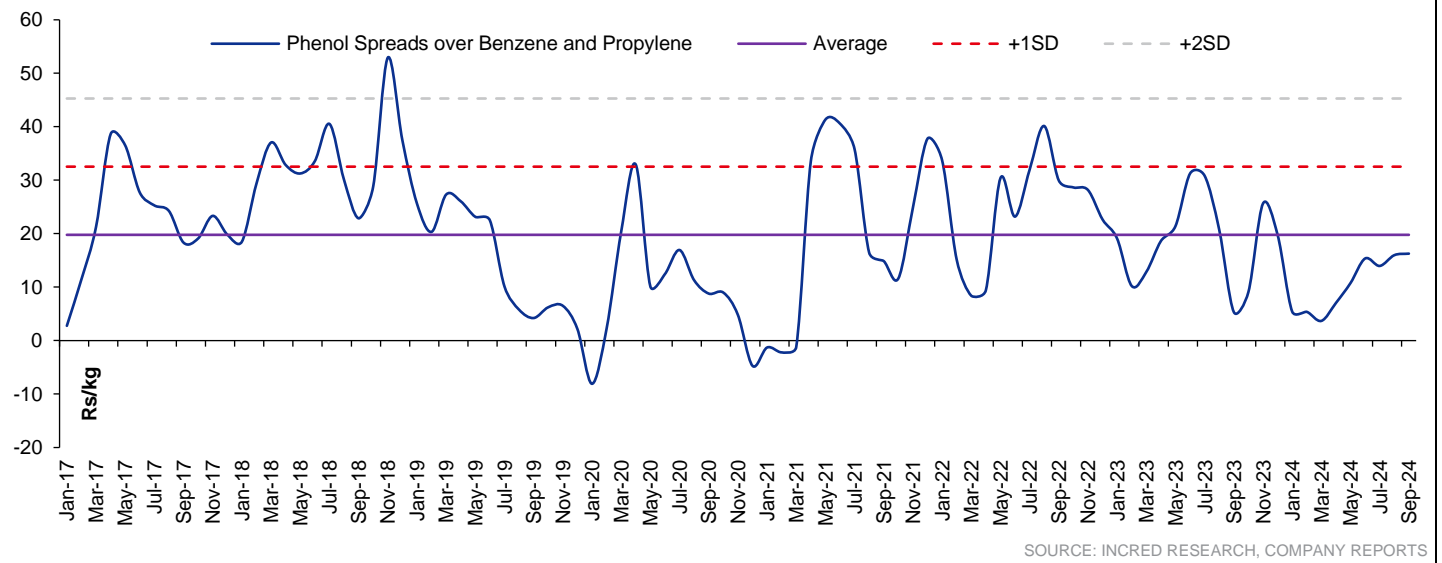
1. Bisphenol-A (BPA), which is used in polycarbonate plastics and epoxy resins, accounts for the largest share of phenol demand.
2. Phenolic resins used in adhesives, coatings, and insulation.
3. Caprolactam for nylon production.
4. Other uses include herbicides, pharmaceuticals, and detergents.

As usual, China dictates the dynamics of this industry, and any increase in supply or production from China has a detrimental impact on the profitability of Indian



phenol manufacturers. It's important to note that China holds approximately 50% of the global capacity.

**Figure 10: While there was some spurt in profitability, by and large phenol spreads have remain depressed**



**2,4 D is an herbicide whose exports and gross profits are tumbling down**

2,4-D (2,4-dichlorophenoxyacetic acid) is one of the most widely used herbicides globally. It is a selective herbicide, which means it targets broadleaf weeds without affecting the grass, making it popular in agriculture, forestry, and residential weed control.

India is a major exporter of 2,4-D. 1QFY25 saw significant channel restocking, but exports have since started to decline. While its spreads are still holding, it's only a matter of time before they also begin to fall.

**Figure 11: 2,4-D exports from India increased in 1QFY25 compared to the low base of 1QFY24 but with channel restocking now complete, exports are trending downwards**

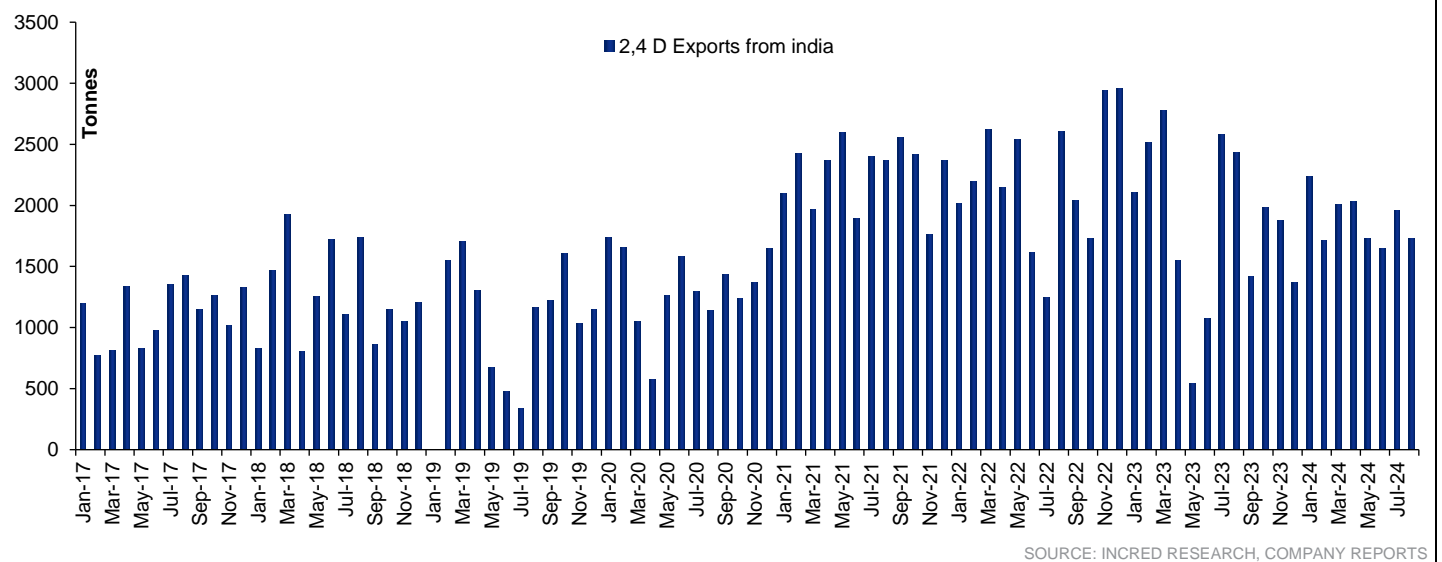
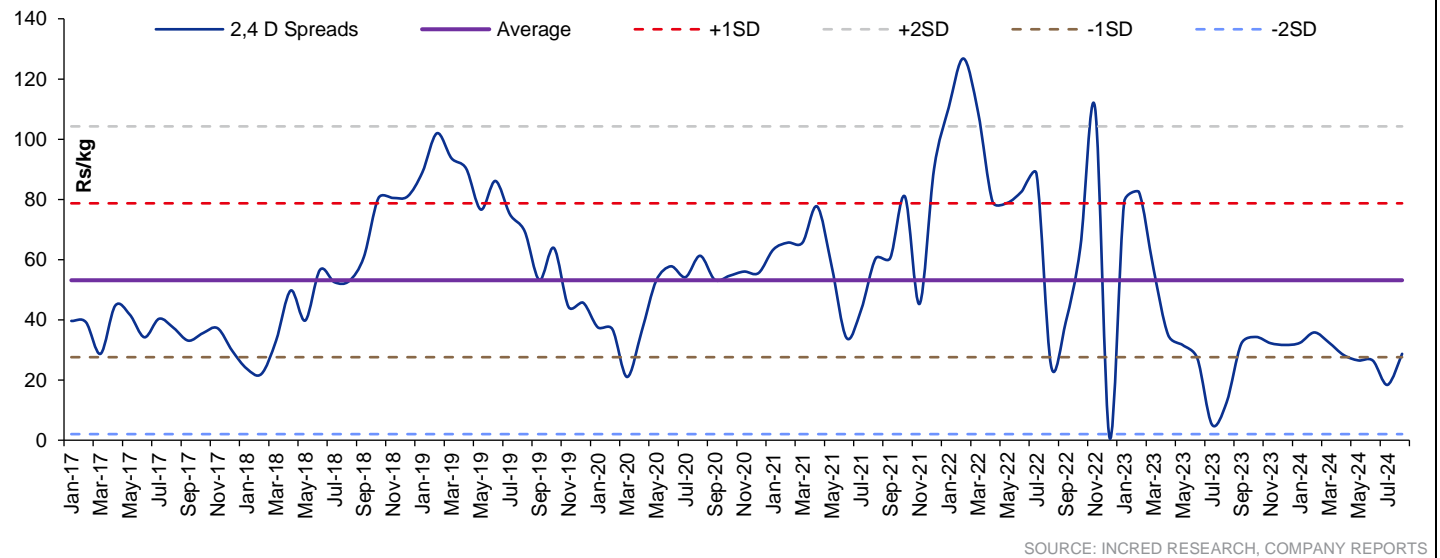


Figure 12: Gross profit will also fall in the coming months



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**The HFC consumption cuts mandated by the US EPA are leading to an oversupply of HFC-134A and HFC-125, causing their prices to fall ➤**

In 2023, the US Environmental Protection Agency (EPA) set the HFC consumption quota under the American Innovation and Manufacturing (AIM) Act at 90% of the baseline, using a GWP-weighted system. This means the allowed HFC consumption for 2023 was 10% lower than the baseline level of consumption from 2011-13.

**1. 2023 HFC quota (in terms of GWP):**

The baseline for HFC consumption is 303.9MMT of CO<sub>2</sub>-equivalent (MMTCO<sub>2</sub>e), which represents the average annual HFC consumption during the baseline period (2011-13).

In 2023, the allowable HFC consumption was set at 90% of the baseline, meaning the quota was 273.51MMTCO<sub>2</sub>e.

**2. Breakdown:**

Baseline (100%): 303.9MMTCO<sub>2</sub>e

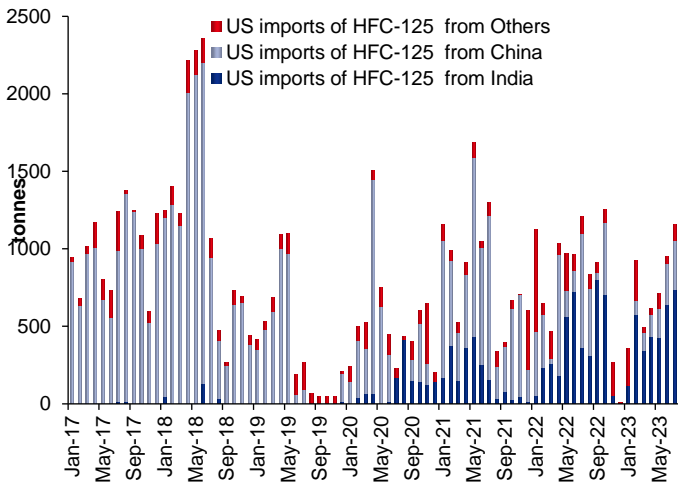
2023 quota (90%): 273.51 MMTCO<sub>2</sub>e

This reduction is part of the phasedown schedule required by the AIM Act, which aims to reduce HFC consumption by 85% by 2036F. The consumption quota is measured in CO<sub>2</sub>-equivalent tonnes, which means it takes into account the Global Warming Potential (GWP) of each HFC, not just the physical amount.

This law is leading to lower imports of these refrigerants into the US, one of the largest markets for them. As a result, the prices of these refrigerants are falling. It's also important to note that the US had imposed anti-dumping duties on Chinese imports, which initially led to rising prices. However, as China has found ways to circumvent these duties and with demand declining, overall prices have started to fall.

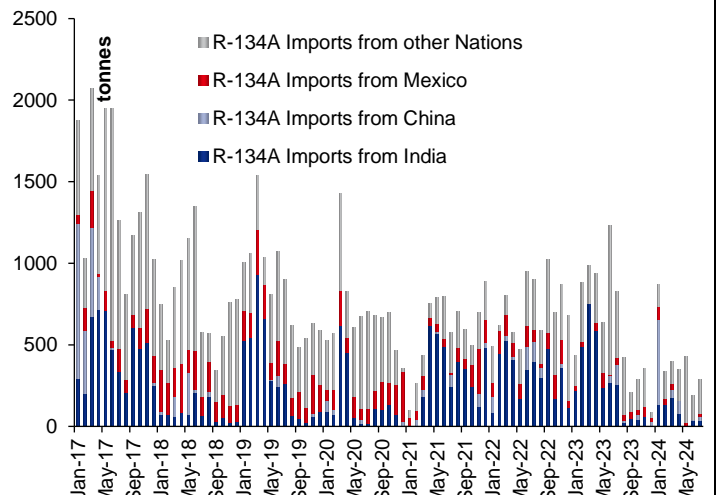


**Figure 13: US imports of HFC from India are around the same level but as the demand is low, prices have started to fall**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

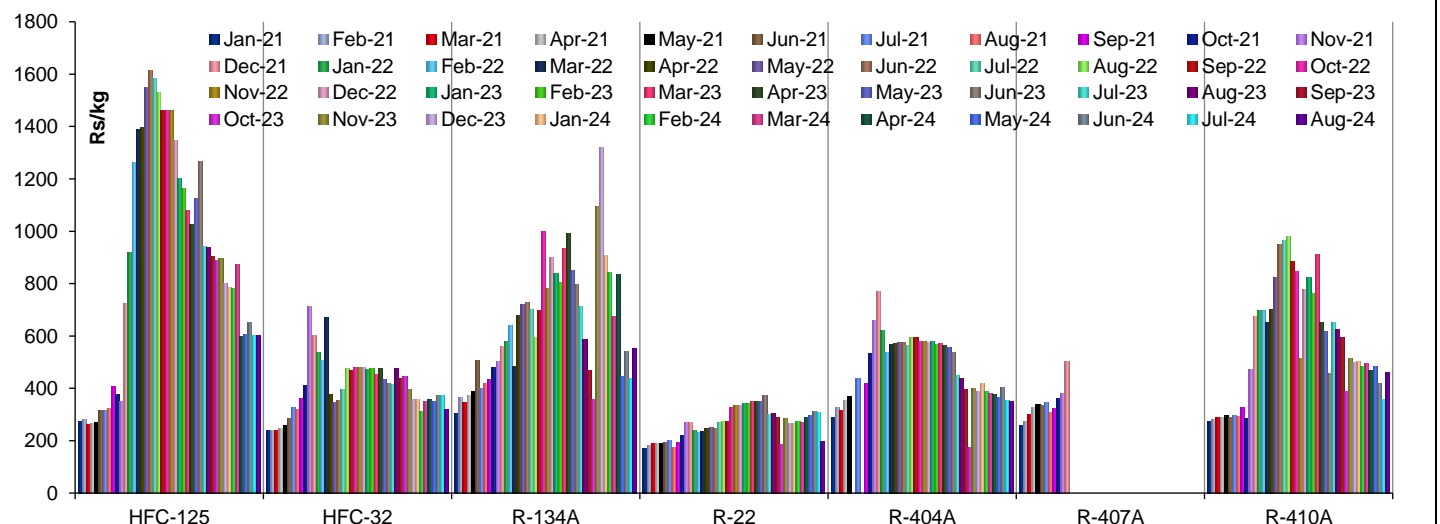
**Figure 14: R-134A imports in the US have taken a serious hit because of EPA restrictions and India's market share is on the decline**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Prices of refrigerants are also falling.

**Figure 15: The anti-dumping duties imposed by the US on Chinese imports led to an extreme price rise for refrigerants like HFC-125 (which surged by 9x) and even HFC-134A; however, new EPA restrictions and imports from alternative destinations into the US have contributed to the decline in refrigerant prices**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**LiPF<sub>6</sub> is the most overhyped electrolyte in India; it's a commodity—oversupplied and outdated—but its prospective manufacturers are trading at 100x earnings ➤**

Lithium hexafluorophosphate (LiPF<sub>6</sub>) is a critical electrolyte salt used in lithium-ion batteries, and its demand has been closely tied to the expansion of electric vehicle (EV) production, energy storage systems, and the broader growth of the lithium-ion battery market.

**Global LiPF<sub>6</sub> demand:**

- **Electric vehicles (EVs):** As EV production ramps up globally, the demand for LiPF<sub>6</sub> has been rising significantly. The demand for LiPF<sub>6</sub> is directly proportional to the lithium-ion battery production volume.
  - In 2023, the global demand for LiPF<sub>6</sub> was estimated at around **90,000–100,000tpa**.
  - The demand for LiPF<sub>6</sub> is projected to grow at a **CAGR of 10-15%** over the next few years, driven by the EV industry, especially in regions like China, the US and Europe.

- **Energy storage systems (ESS):** Besides EVs, LiPF<sub>6</sub> is used in large-scale energy storage systems that support renewable energy grids. This segment is also growing, contributing further to demand.

**Global LiPF<sub>6</sub> capacity:**

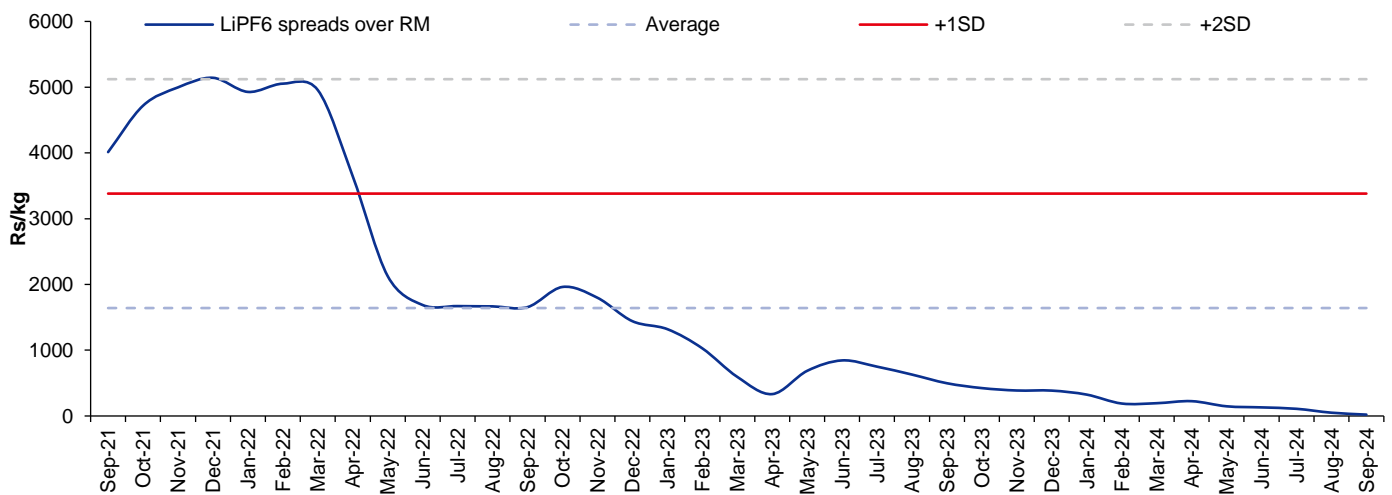
- LiPF<sub>6</sub> production is concentrated in a few key countries, notably China, South Korea, and Japan, where most of the world's battery materials are produced.
  - China dominates the production of LiPF<sub>6</sub>, with major companies like Tinci Materials, Guangzhou Shanshan, and Jiujiu accounting for a significant portion of global capacity. China's share of LiPF<sub>6</sub> production is estimated at over 60-70% of global capacity.
  - Global production capacity for LiPF<sub>6</sub> in 2023 was estimated at around 120,000–150,000tpa, with expansions underway to meet increasing demand.
- **Recent capacity expansions:** Several companies are expanding their LiPF<sub>6</sub> production facilities to meet future demand:
  - Tinci Materials has been actively expanding its capacity.
  - Soulbrain (Korea) and Morita Chemical (Japan) are among the non-Chinese players with significant capacity.
- By 2025F, global LiPF<sub>6</sub> capacity is projected to reach over 200,000tpa, with planned capacity expansions by both Chinese and international producers to avoid shortages.

At the same time, the new electrolyte, LiFSi, offers a better alternative.

**Advantages of LiFSi over LiPF<sub>6</sub>:**

1. **Thermal stability:**
  - LiFSi has better thermal stability compared to LiPF<sub>6</sub>. LiPF<sub>6</sub> tends to degrade at higher temperatures, producing corrosive HF (hydrofluoric acid) and other unwanted byproducts, which can reduce the lifespan of a battery. LiFSi, in contrast, shows better resistance to thermal degradation, leading to improved battery longevity and performance at high temperatures.
2. **Electrochemical stability:**
  - LiFSi has a wider electrochemical stability window, making it more suitable for high-voltage battery chemistries. This characteristic can enable the development of higher-energy-density batteries without causing electrolyte decomposition, an issue that limits the use of LiPF<sub>6</sub> in high-voltage applications.
3. **Lower Impedance:**
  - Batteries using LiFSi typically exhibit lower impedance growth over time, leading to better long-term performance, especially under cycling conditions. This means that LiFSi-based batteries could maintain better efficiency, capacity retention, and cycle life compared to LiPF<sub>6</sub>-based batteries.
4. **Conductivity:**
  - LiFSi offers higher ionic conductivity than LiPF<sub>6</sub>. This results in improved charge and discharge rates, which is particularly beneficial in fast-charging applications like electric vehicles (EVs). Higher conductivity also contributes to overall battery efficiency, improving energy output.

The huge oversupply and the commodity is leading to collapse of LiPF<sub>6</sub> prices and LiPF<sub>6</sub> spreads over raw materials are near their all-time low. No Indian or foreign company can make any positive RoCE on their new expansion.

**Figure 16: The gross profit on LiPF<sub>6</sub> manufacturing is zero and EBITDA will be negative**

SOURCE: INCRED RESEARCH, COMPANY REPORTS

## We like ammonia, ammonium nitrate, soda ash, ABS and phthalic anhydride

All these bulk chemicals have favourable demand-supply dynamics and are the best plays on China's stimulus efforts. Soda ash stands out as the top play among these chemicals. Ammonia also has favourable dynamics because the Western world aims to inflate ammonia prices to make green ammonia viable—moves like the implementation of ETS and CBAM are the steps in that direction. As we have mentioned multiple times, LNG prices are likely to fall, which will result in higher ammonia spreads over LNG.

### Ammonia's spreads over LNG to rise ►

1. Global ammonia prices are rising as capacity constraints and the world's obsession with green ammonia come to the forefront. Even assuming zero equity cost, a 4% debt cost, and the use of the best available technologies at the lowest possible prices, the cost of producing green ammonia still amounts to approximately US\$700/t.
2. At the same time, multiple LNG capacities are coming online, which will reduce gas costs for LNG importers. This will likely drive ammonia prices even higher (they are already approaching the historical average). As Western countries are increasingly obsessed with green ammonia, the only way to make it viable is by inflating the price of grey ammonia. As a result, grey ammonia is likely to reach US\$700/t soon, while lower gas costs will mean increased spreads for grey ammonia producers
3. The Western world is one of the major producers of ammonia and ammonium nitrate, and they are successfully raising production costs by closing grey ammonia plants and introducing mechanisms like CBAM (Carbon Border Adjustment Mechanism) and ETS (Emissions Trading System). Ammonium nitrate plants are also shutting down. As a result, Indian integrated producers of ammonia and ammonium nitrate stand to benefit. Deepak Fertilisers and Petrochemicals (UNRATED) is one such company that will gain from these developments.

For more details please see our note [IN: Chemicals - Overall - Ammonia's spreads over natural gas to rise.](#)

### Ammonium nitrate is also well placed as its spreads over ammonia will increase►

The Covid-19 pandemic and the fear of supply chain disruption led to massive buying by a Peruvian company- Orca Mining Services Peru SA (a mining development company). As against the normal annual imports amounting to 0.8-

0.9mt, Peru had imported ~3.5mt of TAN in CY20. As a result, its imports dropped by 50% of the normal historical average (0.9-1mt) in the next few years. Normally, this alone would have led to a glut during CY21/22 in the global market, but by then the Russian invasion of Ukraine led to a 60% fall in Russia's exports during CY21. While Russian exports recovered a bit in CY22, they were still far below the normal level. Supply chains were devoid of TAN and hence, its prices skyrocketed. In CY23, when Russia's TAN supply turned normal, Peru was carrying a large inventory and hence, its imports were down to 50% of the historical level while Brazil's imports were also down because of mining decline on account of global commodity slowdown fears. This led to excess Russian TAN production being directed to India. India's TAN imports from Russia doubled, and the prices collapsed.

Across the globe, there is no significant increase in TAN manufacturing capacity. China is back to doing what it does best i.e. keep on manufacturing, which is likely to lead to increased demand for resources and hence, mining production can increase significantly (particularly iron ore) which will require more TAN. This means that Brazilian demand will be back to the 1.3-1.4mt level in CY24F and CY25F and a 0.3mt increase vis-à-vis CY23. Please note that as Russia was searching for export markets, its exports to India increased by just 0.2mt in CY23, which itself created a havoc in the Indian market. For the first couple of months in CY24, India received 50% of Russian exports (which was still 37% below the CY23 level) but going ahead, Peru and Brazil are expected to come into the market which will limit India's imports from Russia.

China's stimulus will be another positive for ammonium nitrate, as it is likely to drive up mineral prices, particularly iron ore. This price increase will lead to more mining activity and, in turn, higher consumption of ammonium nitrate. It's important to note that prices would have risen even without the stimulus, but with the stimulus in place, the price increase is likely to be sharper. Please see our earlier report on ammonium nitrate: [IN: Chemicals - Overall - Ammonium nitrate – fortune reversal is likely.](#)

### **Soda ash is another commodity with robust fundamentals, and the China stimulus could make its position even stronger►**

The rapid rise in solar panel demand (as per International Energy Agency or IEA solar panel installation, it will post a 26% CAGR over the next two years) is likely to lead to 3.2mt incremental soda ash demand in CY25F over CY23. We estimate that global soda ash demand for solar panels was ~5.5mt in CY23, which was 30% up YoY. Please note that solar panel installation in the Middle East is rising at a faster pace, primarily led by the green ammonia/hydrogen boom. Please see our earlier report: ([IN: Energy Infrastructure - Electrolyser and green hydrogen update](#)). The fall in battery costs will only lead to a rise in the pace of solar energy adoption. Please see our report on how V<sub>2</sub>O<sub>5</sub>-based batteries ([IN: Non Ferrous - Vanadium: Redox flow battery usage is key](#)) are changing the solar landscape of places with high solar irradiation (like that in the Middle East). The mega project construction in the Middle East (particularly, Neom in Saudi Arabia) will lead to even faster adoption of the solar project. We will not be surprised if five years down the line, the Middle East becomes the green hydrogen hub of the world and developments in solar power will be primary reason for the same.

As of now, prices of soda ash in China are ~Rs22/kg, but please note that even after taking NH<sub>4</sub>CL credit, HOU process-based capacities are not viable at this price. Please note that 20% of the global capacity is based on the HOU process and current global capacity utilization is higher than 85%. Hence, the prices need to rise to make these capacities viable. We estimate that the current production cost of HOU-based capacity is around Rs 26-27/kg and hence, the prices need to rise by 25-30% in the coming months. Also note that rising ammonia prices will be another tailwind for soda ash as ammonia is a major input for the HOU process. Please see our earlier report: ([IN: Oil & Gas - Retail - Ammonia spreads to remain elevated](#)).

### **We also like phthalic anhydride➤**

Phthalic anhydride prices are close to bottom of the cycle. Capacities are being shut and rising naphthalene prices are leading to higher costs of production. Naphthalene is slated to rise further because of China's crackdown on coal tar production and destruction of Ukraine's key production capacity. India, which is a dumping ground for naphthalene-based PA, stands to benefit as the alternate method of making it via ortho xylene turns cost-competitive. Please see our earlier report: [IN: Chemicals - Others - Plasticizers & phthalic anhydride near bottom](#)

### **Fundamentals of ABS also look good to us ➤**

India's demand for ABS and polystyrene is on a robust growth trajectory, underpinned by rising consumption and the need for import substitution. In 2023, India imported around 130kt of ABS and 50kt of polystyrene, primarily from South Korea, Taiwan, and the Netherlands. The reliance on imports underscores a significant opportunity for local manufacturers to ramp up production and capture a larger share of the market. Companies like Bhansali Engineering Polymers and Supreme Petrochem are already planning significant capacity expansions, with the former aiming to increase its ABS capacity from 137kt to 200kt within the next three years. As these expansions come online, the Indian market could see reduced import dependence, thereby improving the trade balance and providing more stable supply chains. Please see our earlier report for more details: [IN: Chemicals - Overall - ABS and polystyrene are in a sweet spot.](#)

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- 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.

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Definition:

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