

Specialty Chemicals

India

Sector View: **Neutral**

NIFTY-50: **24,011**

July 01, 2024

Crop & Chemical Dashboard: China output growth is a worry

Data published by the European Chemical Industry Association (CEFIC) shows that China's chemical output continues to grow nearly 10% yoy, threatening a flood of exports worldwide, even as a broad-based demand recovery remains elusive—industry participants expect a weak 1HFY25. Meanwhile, crop prices have softened in recent months, and could raise worries for the agrochemical industry with regard to the health of grower demand.

A broad-based demand recovery for the chemical industry remains elusive

India's exports of organic and inorganic chemicals fell 8% mom but rose a modest 3% yoy in May 2024, while imports were up 15% mom but flat yoy. US chemical production for May 2024 rebounded 1.7% mom, following declines in March and April, but remained lower by 0.4% yoy. On a 3-month moving average basis, US chemical production was down 1.5% as of May 2024. However, chemical railcar holdings—a measure of volumes—increased 0.9% yoy on a 13-week moving average basis for the week ending June 15. US data indicates continued softness in pricing, with chemical producer prices down 4.9% yoy. Commentary from chemical companies suggests that a broad-based demand recovery is still at least a couple of quarters away, while Chinese overcapacity is an overhang.

Crop prices have softened

US futures prices of most key field crops have softened in recent months, with corn, soybeans and wheat all now down in the range of 19-30% yoy amid concerns around rising supplies despite erratic weather conditions worldwide. Coffee (+38% yoy) and palm oil (+4% yoy) have outperformed relatively. However, trends in India have been quite different: field crop prices are generally up yoy with the exception of soybeans (-9% yoy) and groundnut (-5% yoy), while vegetable prices have also run up amid the heat waves. The monsoon rainfall has gotten off to a deficient start (14% below normal as of June 28), and reservoir levels remain low across India, except for the West. Fertilizer prices remain generally weak, although ammonia import prices into India have recovered somewhat in the past month.

Chemical prices generally remain soft, except for HFC refrigerants

Prices of HFC refrigerants have risen sharply over the past year in China, although they have cooled off somewhat in the past month. Yet, there has not been much of a rise in the prices of these same products in the international markets—a puzzling disparity. The reason may be excess inventories in the overseas markets. It is, therefore, possible that overseas prices move up whenever destocking ends. Aside from the refrigerant category, where supplies are constrained by Montreal Protocol regulations, prices generally remain soft. Prices of 2,4-D have moved up modestly off a depressed base—an exception in an otherwise weak agrochemical pricing environment. Prices of BOPP film are up 22% in the past month, more than polypropylene prices, which have risen 10% mom. Ammonia import prices have rebounded by 29% mom to \$397/t.

Company data and valuation summary

Ticker	CMP(Rs)	FV (Rs)	Rating	Upside (%)
ARTO IN	686	460	SELL	(33)
ATLP IN	6,480	3,970	SELL	(39)
CLEAN IN	1,431	1,390	ADD	(3)
DN IN	2,502	2,310	REDUCE	(8)
NFIL IN	3,574	2,970	REDUCE	(17)
NEOGEN IN	1,588	1,870	BUY	18
SRF IN	2,436	2,360	ADD	(3)
TTCH IN	1,103	780	SELL	(29)
VO IN	1,898	1,140	SELL	(40)
BYRCS IN	6,712	4,870	SELL	(27)
GOAGRO IN	675	740	BUY	10
PI IN	3,799	3,840	ADD	1
RALI IN	312	200	SELL	(36)
UPLL IN	571	380	SELL	(33)

Ticker	P/E(x)		EV/EBITDA(x)	
	2025E	2026E	2025E	2026E
ARTO IN	46.1	34.7	22.3	17.8
ATLP IN	39.0	32.7	19.4	16.8
CLEAN IN	43.8	34.0	32.2	25.2
DN IN	37.7	29.1	27.1	21.1
NEOGEN IN	63.8	31.7	33.6	18.3
NFIL IN	73.1	39.0	40.6	24.8
SRF IN	44.2	31.4	23.9	18.6
TTCH IN	38.9	31.3	9.5	8.6
VO IN	49.3	40.7	32.9	27.4
BYRCS IN	36.3	32.5	26.8	24.0
GOAGRO IN	26.0	20.7	15.3	12.4
PI IN	35.3	30.7	23.6	21.1
RALI IN	33.9	28.7	16.7	14.5
UPLL IN	150.9	23.9	9.4	7.4

Source: Bloomberg, Company data, Kotak Institutional Equities estimates

Prices in this report are based on the market close of June 28, 2024

Related Research

- Specialty Chemicals: Another generally soft
- Specialty Chemicals: Crop & Chemical
- Specialty Chemicals: HFC refrigerant prices

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Abhijit Akella, CFA
abhijit.akella@kotak.com
+91-22-4336-0878

Sumit Kumar
sumit.kumar01@kotak.com
+91-22-6166-1803

Agrochemical 9(3) registrations in India

On the agrochemical 9(3) registration front, chlorantraniliprole was the most popular product, with several companies including FMC, Syngenta, Best Agro, Adama, UPL and Tagros registering either straight formulations or combinations of the active ingredient. However, the most interesting and novel new launches in our assessment again came from Syngenta, which obtained registration for the fungicide fludioxonil and the insecticide spirotropin.

European chemical industry data

After a 20-month spell in negative territory, chemical production in the EU27 increased for the third consecutive month in April 2024. However, CEFIC states that the increase in volumes must be seen with caution as it could be due to short-term restocking. Structural problems such as a lack of orders and high costs continue to weigh on an expected recovery. The data also suggests that China continues to report a high level of production (see Exhibit 17), even as chemical companies have not indicated improvement in China's domestic demand. Therefore, the increased production poses a major risk of higher exports from China to international markets, impacting global competitiveness and lowering prices. Elsewhere, Germany reached its highest output level since July 2022, as the order scenario improved, led by low inventories in consumer industries and an increase in demand from outside Europe.

Agriculture dashboard

US futures prices of corn, wheat and soybeans have fallen 19-30% over the past year

Exhibit 1: International crop futures prices

	Unit	27-Jun-24	28-May-24	28-Jun-23	mom	yoy
US crop futures prices						
Coffee	(US\$/lb)	2.3	2.3	1.7	-1.2%	37.8%
Cotton	(US\$/lb)	0.7	0.8	0.8	-9.5%	-4.2%
Corn	(US\$/bushel)	4.1	4.6	5.9	-10.5%	-29.9%
Rice	(US\$/cwt)	16.8	18.1	17.5	-7.4%	-4.2%
Soybean	(US\$/bushel)	11.5	12.3	14.5	-6.3%	-20.6%
Sugar	(USc/lb)	20.2	18.7	20.9	8.1%	-3.1%
Wheat	(US\$/bushel)	5.8	7.2	7.2	-19.6%	-19.4%
Brazil crop futures prices						
Corn	US\$/60 kg-bag	12.8	12.3	12.9	4.1%	-1.1%
Soybean	US\$/60 kg-bag	25.2	26.8	28.2	-5.8%	-10.5%
Europe futures prices						
Wheat	US\$/ ton	251.6	293.1	269.0	-14.1%	-6.4%
Malaysia futures prices						
Palm oil	US\$/ ton	837.9	839.6	798.5	-0.2%	4.9%

Notes: 1 bushel of corn = 25.401 kg, 1 bushel of wheat or soybean = 27.216 kg, 1cwt = 45.359 kg

Source: Bloomberg, Kotak Institutional Equities

In India, vegetable prices are on the boil, while field crops have held relatively steady

Exhibit 2: Spot prices of crop commodities in India

	27-Jun-24	21-May-24	19-Jun-23	mom	yoy
Crop prices (Rs/quintal)					
Paddy	2,380	2,263	1,999	5.2%	19.1%
Wheat	2,462	2,423	2,295	1.6%	7.3%
Maize	2,098	2,092	1,872	0.3%	12.1%
Soybean	4,424	4,528	4,869	-2.3%	-9.1%
Cotton	7,277	7,100	6,690	2.5%	8.8%
Ground nut	6,073	6,277	6,415	-3.2%	-5.3%
Rubber (natural)	17,507	17,016	14,669	2.9%	19.3%
Vegetable prices (Rs/quintal)					
Cabbage	1,710	1,197	1,615	42.8%	5.9%
Cauliflower	1,518	1,883	2,669	-19.4%	-43.1%
Onion	2,468	1,406	1,492	75.5%	65.4%
Potato	2,046	1,802	1,356	13.6%	50.9%
Tomato	3,037	1,544	2,168	96.7%	40.1%

Source: Agmarket, Kotak Institutional Equities

The USDA made only minor revisions to world crop supply-demand estimates in June

Exhibit 3: USDA world agriculture demand and supply estimates

Crop	Unit	2022-23	2023-24 Est.	May-24	Jun-24
				2024-25 Projection	2024-25 Projection
Corn - world	mn MT				
Production		1,158.0	1,228.1	1,219.9	1,220.5
Consumption		1,170.8	1,216.7	1,220.8	1,222.2
Closing stocks		300.9	312.4	312.3	310.8
Stock-to-use		25.7%	25.7%	25.6%	25.4%
Corn - world less China	mn MT				
Production		880.7	939.3	927.9	928.5
Consumption		871.6	909.7	907.8	909.2
Closing stocks		94.9	101.5	99.4	97.9
Stock-to-use		10.9%	11.2%	11.0%	10.8%
Cotton - world	mn 480-pound bales				
Production		116.3	113.8	119.1	119.1
Consumption		111.7	113.1	116.9	116.9
Closing stocks		80.7	81.0	83.0	83.5
Stock-to-use		72.2%	71.6%	71.0%	71.4%
Rice - world	mn MT				
Production		515.8	520.0	527.6	527.6
Consumption		520.3	522.6	526.4	526.4
Closing stocks		179.4	176.8	176.1	178.0
Stock-to-use		34.5%	33.8%	33.5%	33.8%
Soybean - world	mn MT				
Production		378.2	395.9	422.3	422.3
Consumption		366.2	383.3	401.7	401.7
Closing stocks		100.6	111.1	128.5	127.9
Stock-to-use		27.5%	29.0%	32.0%	31.8%
Wheat - world	mn MT				
Production		789.2	787.6	798.2	790.8
Consumption		791.4	799.1	802.4	798.0
Closing stocks		271.0	259.6	253.6	252.3
Stock-to-use		34.2%	32.5%	31.6%	31.6%

Source: USDA, Kotak Institutional Equities

For India, the USDA revised rice closing inventories higher

Exhibit 4: USDA India agriculture demand and supply estimates

Crop	Unit	2022-23	2023-24 Est.	Apr-24	May-24	Jun-24
				2023-24 Projection	2024-25 Projection	2024-25 Projection
Cotton	mn 480-pound bales					
Production		26.3	26.0	25.5	25.0	25.0
Consumption		24.0	24.7	24.0	25.2	25.2
Closing stocks		11.3	11.5	12.3	10.8	10.8
Stock-to-use		47.2%	46.6%	51.3%	42.9%	42.9%
Rice	mn MT					
Production		135.8	134.0	134.0	138.0	138.0
Consumption		114.5	116.5	118.0	120.0	120.0
Closing stocks		35.0	36.5	35.0	36.5	38.5
Stock-to-use		30.6%	31.3%	29.7%	30.4%	32.1%
Wheat	mn MT					
Production		104.0	110.6	110.6	114.0	114.0
Consumption		108.7	112.3	113.0	113.0	113.0
Closing stocks		9.5	7.5	6.9	8.5	8.5
Stock-to-use		8.7%	6.7%	6.1%	7.5%	7.5%

Source: USDA, Kotak Institutional Equities

World soybean stock-to-use ratios are now at a cyclical high

Exhibit 5: World stock-to-use ratios in key crops

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025P
Corn	21%	22%	32%	31%	28%	27%	26%	26%	26%	26%	25%
non-China	14%	14%	15%	14%	13%	12%	10%	11%	11%	11%	11%
Cotton	100%	85%	69%	66%	67%	94%	70%	66%	72%	72%	71%
Rice	24%	28%	31%	34%	37%	37%	37%	35%	34%	34%	34%
Soybean	26%	25%	29%	29%	33%	27%	28%	27%	27%	29%	32%
Wheat	31%	34%	35%	38%	39%	40%	36%	34%	34%	32%	32%

Source: USDA, Kotak Institutional Equities

Weather conditions remain erratic across the world

Exhibit 6: Weather check

India	Monsoon continued to advance northward. Showers were on the increase in central cotton and oilseed areas, rainfall was patchy in eastern rice locales.
Europe	Moderate to heavy showers and thunderstorms over the eastern third of Europe boosted soil moisture for vegetative summer crops but slowed winter crop drydown and early harvesting.
Latin America	In Argentina, light showers benefited emerging winter grains in southern production areas while unseasonable warmth in farming areas north and west helped to spur germination of wheat and barley while also helping to dry down mature summer crops. In Brazil, warm and sunny weather promoted rapid development of maturing corn and cotton. Little to no rain fell in the country's main agricultural areas.
Australia	Rain continued to spread across much of the Western Australia wheat belt. Rains in South Australia and Western Victoria provided a much-needed boost in topsoil moisture for germinating to emerging wheat, barley and canola.
Asia	Monsoon showers prevailed across the Philippines, sustaining favorable moisture conditions for rice and other crops. Moisture conditions for oil palm have improved over the last 60 days in Malaysia.
Middle east	Scorching heat in Turkey accelerated winter grain drydown but increased irrigation demands for summer crops. Somewhat heavier showers on northwestern Iran provided moisture for sunflowers and rice.

Source: USDA, Kotak Institutional Equities

Fertilizer prices remain generally soft, although ammonia import prices into India perked up last month

Exhibit 7: Fertilizer prices (US\$/MT)

Prices in USD/ton	Average monthly prices			Price as of 21-Jun-24	% change	
	May-24	Apr-24	May-23		mom	yoy
International prices						
Ammonia (US)	440	475	421	400	-7.4%	4.5%
DAP (US)	522	545	637	548	-4.2%	-18.1%
Phosphoric acid (China)	1131	1067	1214	NA	6.0%	-6.8%
Potassium Chloride (US)	307	305	408	NA	0.7%	-24.7%
Rock phosphate (Global index)	153	153	345	NA	0.0%	-55.8%
Urea (US)	291	313	366	300	-7.1%	-20.6%
India prices						
Ammonia	316	315	366	397	0.5%	-13.7%
Phosphoric acid	956	968	1050	948	-1.2%	-9.0%
Urea	344	344	333	344	0.0%	3.3%

Source: Bloomberg, Kotak Institutional Equities

Fertilizer sales volumes increased in April 2024, but this is during the off-season period

Exhibit 8: Production, sales and imports of fertilizers (mn MT)

(mn MT)	Apr-24			% yoy			YTD 2025			% yoy		
	Production	Sales	Import	Production	Sales	Import	Production	Sales	Import	Production	Sales	Import
Urea	2.5	2.7	0.3	8%	128%	10%	2.5	2.7	0.3	8%	128%	10%
DAP	0.2	0.4	0.3	-44%	34%	-39%	0.2	0.4	0.3	-44%	34%	-39%
Complex fertilizers	0.7	0.5	0.1	9%	96%	-59%	0.7	0.5	0.1	9%	96%	-59%
MOP	NA	0.1	0.2	NA	16%	75%	NA	0.1	0.2	NA	16%	75%

Source: Department of Fertilizers, Kotak Institutional Equities

Fertilizer subsidy disbursement was a little under Rs2 tn in FY2024

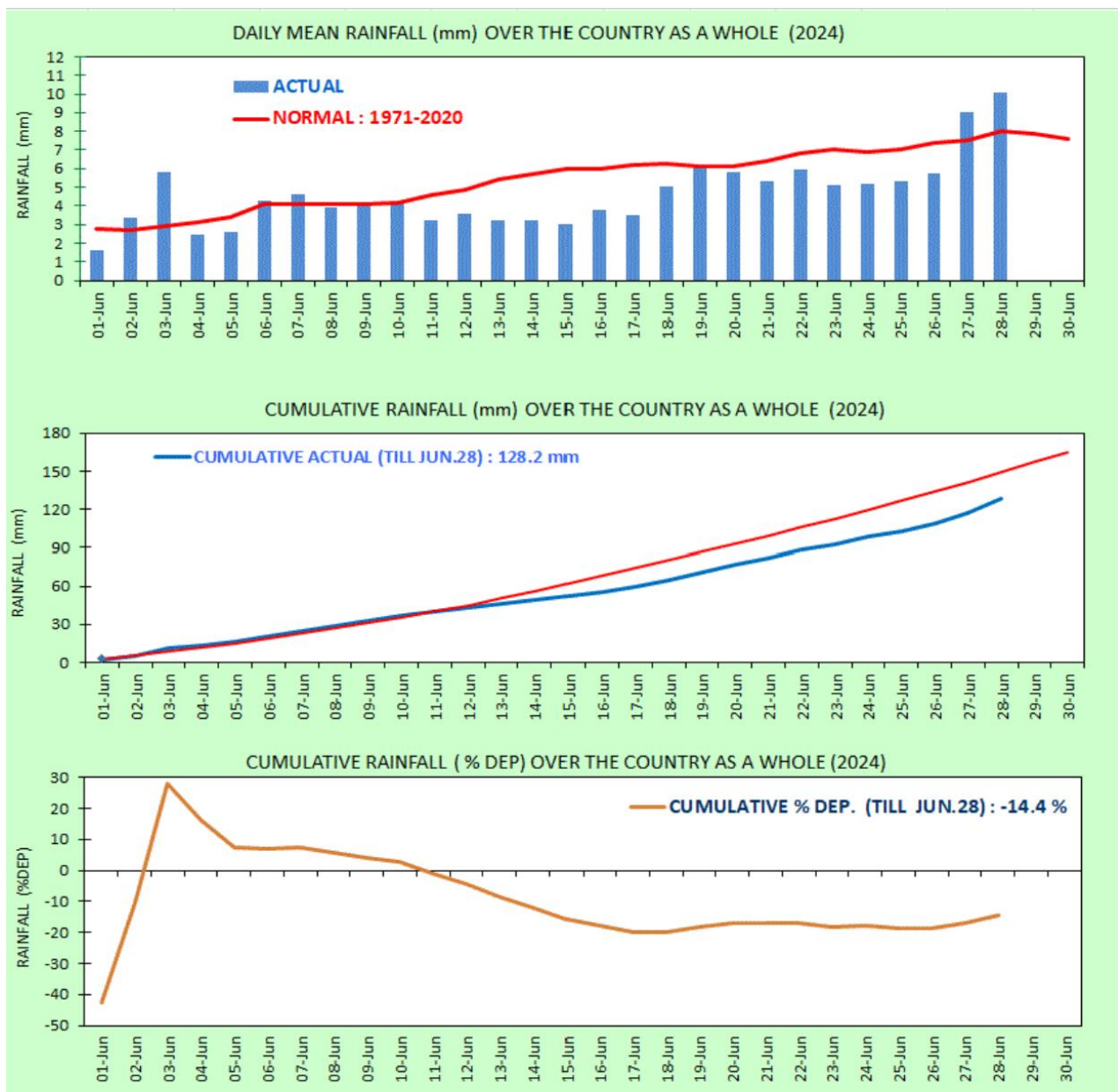
Exhibit 9: Fertilizer subsidy disbursement (Rs bn)

	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	FY2024
Fertilizer monthly subsidy disbursement (Rs bn)													
Urea	69	93	141	185	156	63	92	73	153	92	91	96	1,302
P&K	94	1	66	85	95	81	11	7	-	156	5	51	652
Total	162	94	206	270	251	144	103	80	153	248	96	148	1,954
Growth (yoy, %)													
Urea	39	67	(3)	100	14	(15)	32	(80)	(37)	(53)	(60)	154	(21)
P&K	1,387	(18)	5,301	(20)	364	(39)	(92)	(95)	(100)	160	(96)	(32)	(17)
Total	191	65	42	35	60	(31)	(52)	(84)	(47)	(4)	(73)	31	(20)

Source: Department of Fertilizers, Kotak Institutional Equities

Monsoon rainfall was 14% below normal as of June 28

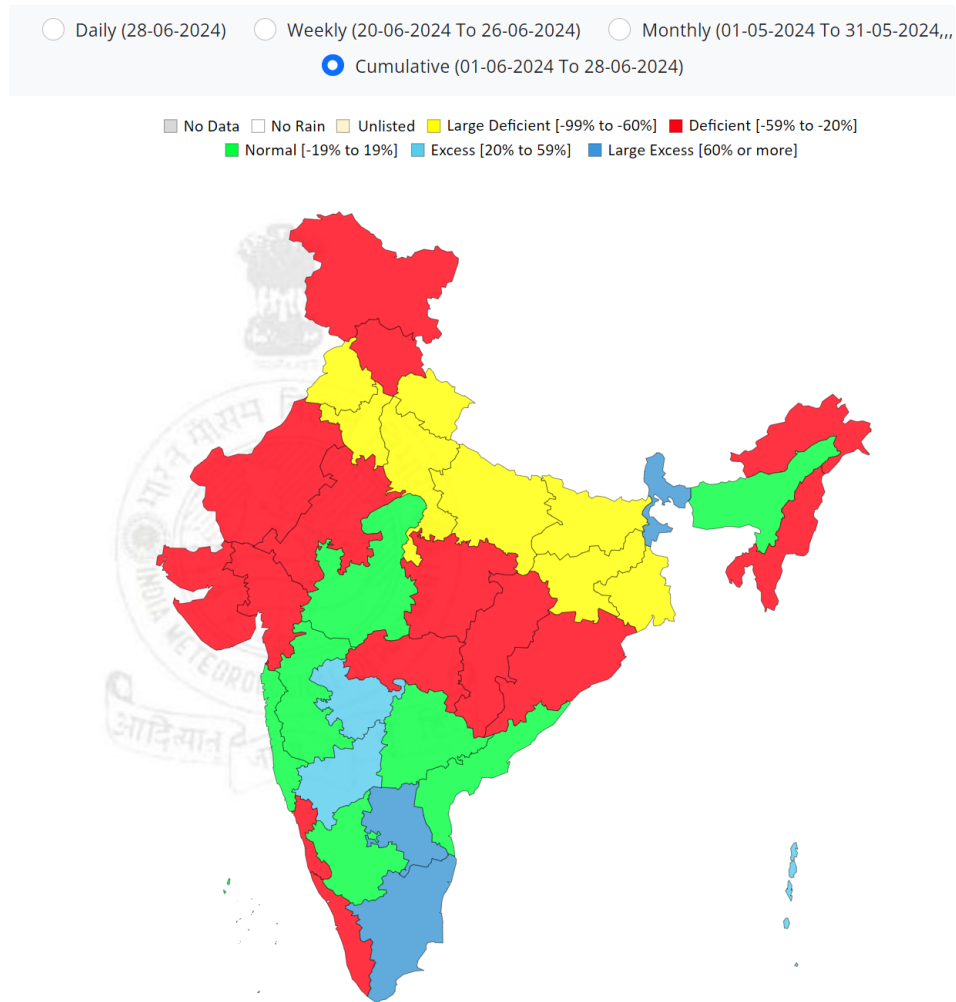
Exhibit 10: All-India rainfall time series from June 1, 2024 to June 28, 2024



Source: IMD, Kotak Institutional Equities

Barring the southern states and parts of central India, the rest of the country has received deficient rainfall

Exhibit 11: Sub-divisional rainfall map of India as of June 28, 2024



Source: IMD, Kotak Institutional Equities

Reservoir levels remain below normal across the entire country except in the west

Exhibit 12: Region-wise water reservoir levels (bn cubic meter) as of June 27, 2024

Regions	Current storage	Last year's storage	10 years average storage
Northern	5.2	7.8	6.1
Eastern	3.6	3.6	4.6
Western	7.5	8.6	7.5
Central	11.7	15.5	12.7
Southern	8.3	10.8	11.7

Source: Central Water Commission, Kotak Institutional Equities

Egg prices firmed up last month, whereas layer prices declined

Exhibit 13: Prices of broiler (Rs/kg), egg (Rs/100 eggs) and layer (Rs/kg)

	Unit	Jun-24	May-24	Jun-23	mom	yoy
Average broiler prices	(Rs/kg)	144	143	138	0%	4%
Average egg prices	(Rs/100 eggs)	520	414	498	26%	4%
Average layer prices	(Rs/kg)	67	86	60	-21%	12%

Note: Egg prices are for May-24, Apr-24 and May-23.

Source: Poultry Bazaar, Kotak Institutional Equities

9(3) agrochemical registration watch: Chlorantraniliprole is a popular new launch; Syngenta is launching interesting new products

Exhibit 14: Registration committee decisions on registration of new formulations/technical in 456th meeting (held on Jun 13, 2024)

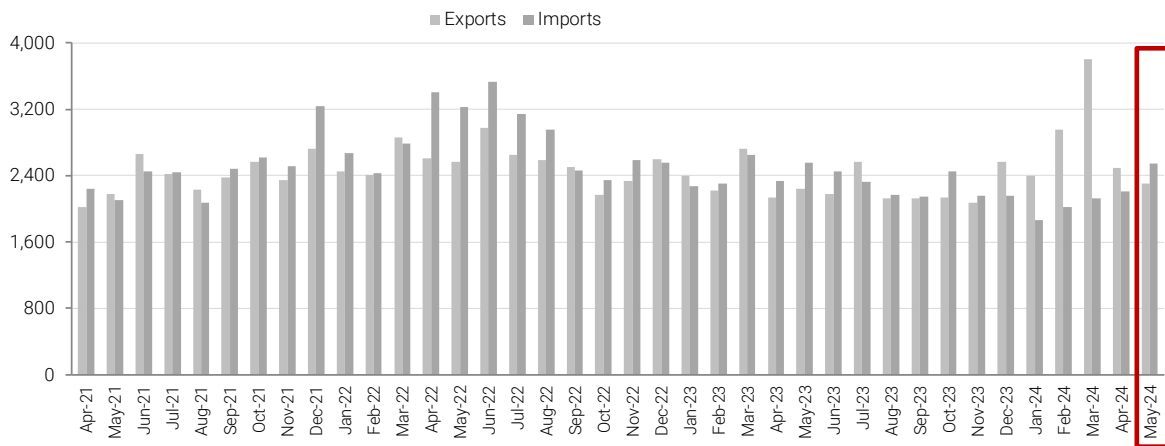
Company	Product	Comments
M/s Syngenta India Ltd.	Fludioxonil 20.4%	Registration granted of Fludioxonil 20.4% SC for the control of post-harvest diseases (Grey mold, Blue mold, Moldy core and Mucor in apple, Post-harvest fruit rot (complex of fungi; Grey mould: Botrytis cinerea; Blue mould: Penicillium sp.; Fruit rot: Diplodiasp., Colletotrichum, Alternaria)
M/s FMC India Pvt. Ltd	Chlorantraniliprole 47.85% SC	Registration granted of Chlorantraniliprole 47.85% SC for control of borer on sugarcane, maize, rice, chick pea etc
M/s Syngenta India Ltd.	Spiropidion 30% + Acetamiprid 24% WG	Registration granted of Spiropidion 30% + Acetamiprid 24% WG for the control of mealy bug (Phenacoccus solenopsis), thrips(Thrips tabaci), jassids (Amrasca devastans), aphids (Aphis gossypii) and whiteflies (Bemisia tabaci) on cotton and thrips (Thrips tabaci), aphids (Aphis gossypii) and whiteflies (Bemisia tabaci) on tomato crop
M/s Syngenta India Ltd.	Chlorantraniliprole 7.5% + Thiamethoxam 7.5% OD	Registration of Chlorantraniliprole 7.5% + Thiamethoxam 7.5% OD for the control of stem borer (Scirpophaga incertulas) and whorl maggot (Hydrellia philippina) on transplanted rice crop
M/s Syngenta India Ltd.	Spiropidion technical 96% w/w min.	Registration for import of Spiropidion technical 96% w/w min from approved source of import M/s Syngenta Crop Protection Monthey SA, Switzerland
M/s Ichiban Crop Sciences Ltd	Metamifop technical 96% w/w	Registration for Technical Indigenous manufacture of Metamifop technical 96% w/w min
M/s Ichiban Crop Sciences Ltd	Mandipropamid technical 93% w/w min.	Registration granted for Technical Indigenous manufacture of Mandipropamid technical 93% w/w min
M/s Seedling India Pvt. Ltd.	Chlorantraniliprole 4.5% + Novaluron 11.5% + Emamectin benzoate 1.5% SE	Registration of Chlorantraniliprole 4.5% + Novaluron 11.5% + Emamectin benzoate 1.5% for the control of shoot and fruit borer (Leucinodes orbonalis) in brinjal crop
M/s Adama India Pvt. Ltd.	Chlorantraniliprole 0.53% + Fipronil 0.8% GR	Registration of Chlorantraniliprole 0.53% + Fipronil 0.8% GR for the control of yellow stem borer (Scirpophaga incertulas) on rice
M/s Adama India Pvt. Ltd.	Pymetrozine 29.2% + Dinotefuran 11.7% WDG	Registration for Pymetrozine 29.2% + Dinotefuran 11.7% WDG for the control of brown plant hopper (Nilaparvata lugens) on rice crop only.
M/s Parijat Industries (India) Pvt Ltd	Mesotrione 40% w/w (48% w/v) SC	Registration of Mesotrione 40% w/w (48% w/v) SC for the control of weeds in maize crop
M/s Rallis India Ltd	sulfoxaflor 7.5% + Buprofezin 15% SC	Registration of sulfoxaflor 7.5% + Buprofezin 15% SC for the control of brown plant hopper (Nilaparvata lugens) on rice crop
M/s FMC India Pvt. Ltd	Cyantraniliprole 18.41% SC	Registration of Cyantraniliprole 18.41% SC for the control of thrips, aphids, whitefly, leaf miner and tobacco caterpillar in capsicum; thrips, whitefly and tobacco caterpillar in chilli; thrips, aphids, whitefly and leaf miner in tomato; thrips, aphids, whitefly, leaf miner and cucumber moth in cucumber and thrips, aphids, whitefly and leaf miner in water melon crops only
M/s UPL Ltd.	Chlorantraniliprole 12% + Fipronil 30% WG	Registration of Chlorantraniliprole 12% + Fipronil 30% WG for the control of thrips (Scirtothrips dorsalis), aphids (Aphis gossypii), fruit borer (Helicoverpa armigera) and tobacco caterpillar (Spodoptera litura) on chilli crop and thrips (Thrips tabaci), aphids (Aphis gossypii), American bollworm (Helicoverpa armigera) and pink bollworm (Pectinophora gossypiella) on cotton crop
M/s GSP Crop Science Pvt. Ltd	Trifloxystrobin 25% + Tebuconazole 35% + Mepiquat chloride 10% WG	Registration of Trifloxystrobin 25% + Tebuconazole 35% + Mepiquat chloride 10% WG for control of Sheath Blight, False smut and Grain discoloration Diseases of Paddy and for checking the excessive growth in Paddy crop
M/s UPL Ltd	Spinosad 7.48% Tablet	Registration of formulation import of Spinosad 7.48% w/w Tablet for the control of Anopheles stephensi and Aedes aegypti on domestic clean / potable waters, clean water containers, plastic barrels, cement tanks, barrels, earthen pots, plastic overhead tanks, and plastic containers
M/s Best Crop Science Pvt. Ltd.	Haloxifop R methyl ester technical 96% w/w min.	Registration of technical indigenous manufacture of Haloxifop R methyl ester technical 96% w/w min.
M/s Natco Pharma Ltd.	Tebuconazole 50% + Trifloxystrobin 25% WG	Registration for Tebuconazole 50% + Trifloxystrobin 25% WG for control of Sheath blight, Leaf blast & Neck blast, Glume discoloration (Dirty panicle) in Paddy crop.
M/s UPL Ltd.	Spinosad 20.62% EC	Registration for formulation import of Spinosad 20.62% w/w EC for the control of Anopheles stephensi and Aedes aegypti on clean water containers, plastic barrels, cement tanks, barrels, earthen pots, plastic overhead tanks, and plastic containers and Culex quinquefasciatus on polluted water stagnant, drains cement lined "U" shaped drains, slow running / stagnant drains and waste water drains
M/s UPL Ltd.	Spinosad 2.50% GR	Registration for formulation import of Spinosad 2.50% w/w GR for the control of Anopheles stephensi and Aedes aegypti on clean water containers, plastic barrels, cement tanks, barrels, earthen pots, plastic overhead tanks, and plastic containers and Culex quinquefasciatus on polluted water stagnant, drain cement lined "U" shaped drains, slow running / stagnant drains and waste water drains
M/s Tagros Chemicals India Pvt. Ltd.	Chlorantraniliprole 50% w/w FS	Chlorantraniliprole 50% w/w FS for control of Yellow Stem borer (Scirpophaga incertulas), Leaf folder (Cnaphalocrocis medinalis) on Rice; Spotted Stem borer (Chilo partellus), Fall army worm (Spodoptera frugiperda) on Maize.

Source: CIB&RC, Kotak Institutional Equities

Chemical dashboard

India's imports of organic and inorganic chemicals have inched up in recent months, but exports have fallen after March 2024

Exhibit 15: Monthly export and import of organic and inorganic chemicals (US\$ mn)



Source: Ministry of Commerce, Kotak Institutional Equities

US chemical production remains lower yoy on a 3MMA basis; prices are lower, too

Exhibit 16: Change (yoy, 3-month moving average) in chemicals production and producer prices in the US

	May 2024 3MMA % yoy change	
	Production	Producer prices
Chemicals	(1.5)	(4.9)
Agricultural chemicals	(0.8)	(9.7)
Consumer products	1.6	1.4
Basic & specialty chemicals	(2.1)	(6.7)
Basic chemicals	(1.8)	(8.7)
Inorganic chemicals	(2.7)	(9.3)
Bulk Petrochem & Organics	(3.6)	(10.9)
Plastic resins	3.3	(5.2)
Synthetic rubber	(9.3)	(0.2)
Manufactured fibers	(7.2)	5.0
Specialty chemicals	(3.0)	(0.1)
Coatings	(2.3)	(1.2)
Other specialities	(3.3)	0.5
Feedstocks	n/a	8.0
Capacity utilization	78.2%	n/a

Source: American Chemistry Council, Kotak Institutional Equities

China continues to produce aggressively, even as its domestic demand remains subdued

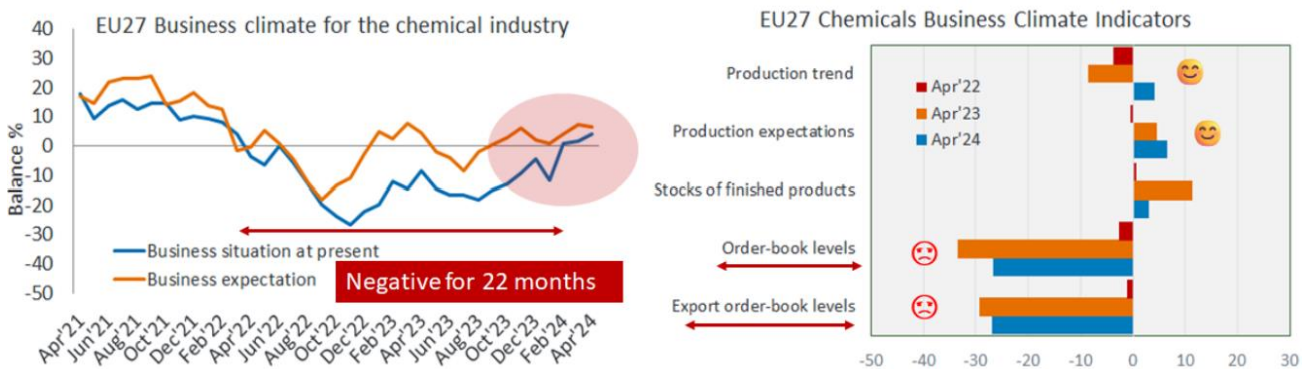
Exhibit 17: Chemical production growth across key regions worldwide (in %)

Output	2021	2022	2023	Jan- Mar 2024
UK	(10.9)	(4.5)	(10.1)	(5.7)
South Korea	8.5	(9.9)	(9.6)	(3.1)
Japan	5.1	(3.8)	(6.4)	(2.7)
Brazil	3.6	1.1	(5.8)	(0.8)
USA	4.2	2.3	(1.3)	(0.5)
India	8.0	4.2	(0.2)	(0.1)
EU27	5.7	(5.8)	(8.2)	0.6
Germany	5.6	(12.0)	(10.1)	5.4
Russia	7.1	(2.3)	4.6	7.7
China	8.4	6.4	9.6	9.5
World	7.2	1.6	2.9	5.8

Source: CEFIC, Kotak Institutional Equities

In the EU, business conditions have improved somewhat, but order books remain weak

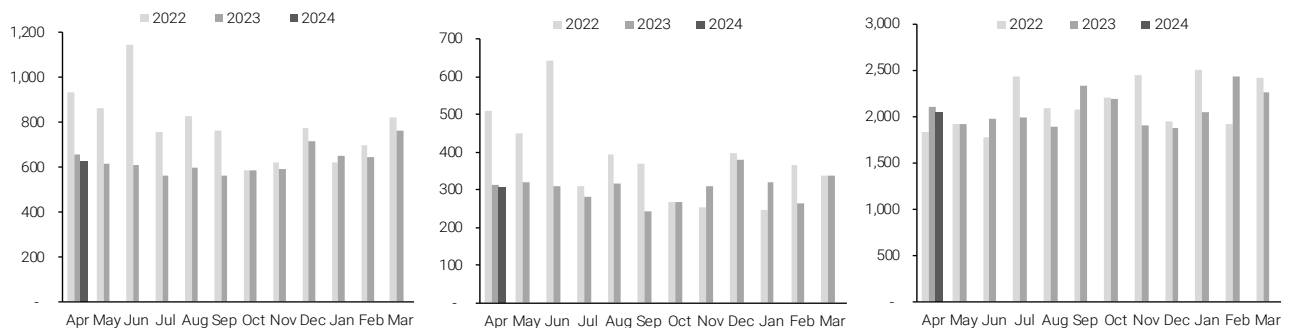
Exhibit 18: EU27 business condition



Source: CEFIC, Kotak Institutional Equities

Organic chemical export volumes as well as realizations slipped a tad in April 2024 on a yoy basis

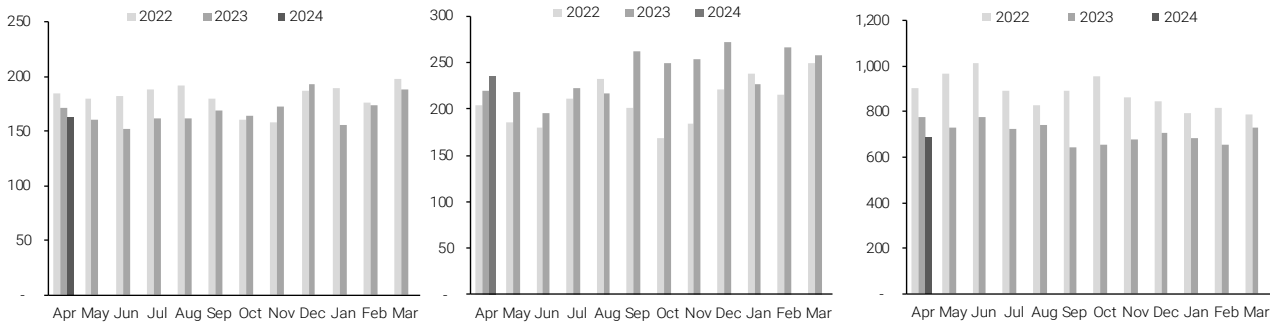
Exhibit 19: Organic chemicals export value (US\$ mn), volumes (MT) and prices (US\$/ton), 2022-2024



Source: Ministry of Commerce, Kotak Institutional Equities

Inorganic chemical realizations slipped, offsetting volume growth yoy in April 2024

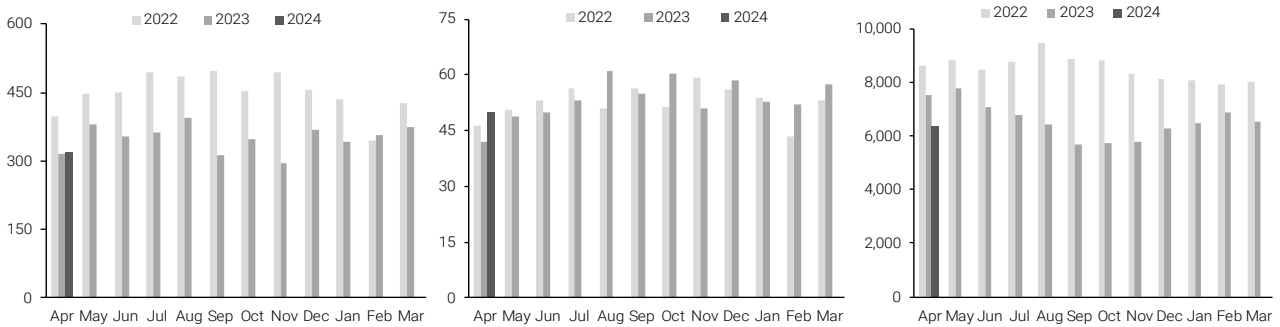
Exhibit 20: Inorganic chemicals export value (US\$ mn), volumes (MT) and prices (US\$/ton), 2022-24



Source: Ministry of Commerce, Kotak Institutional Equities

Similarly, agrochemical realizations slipped as well, offsetting volume growth in April 2024

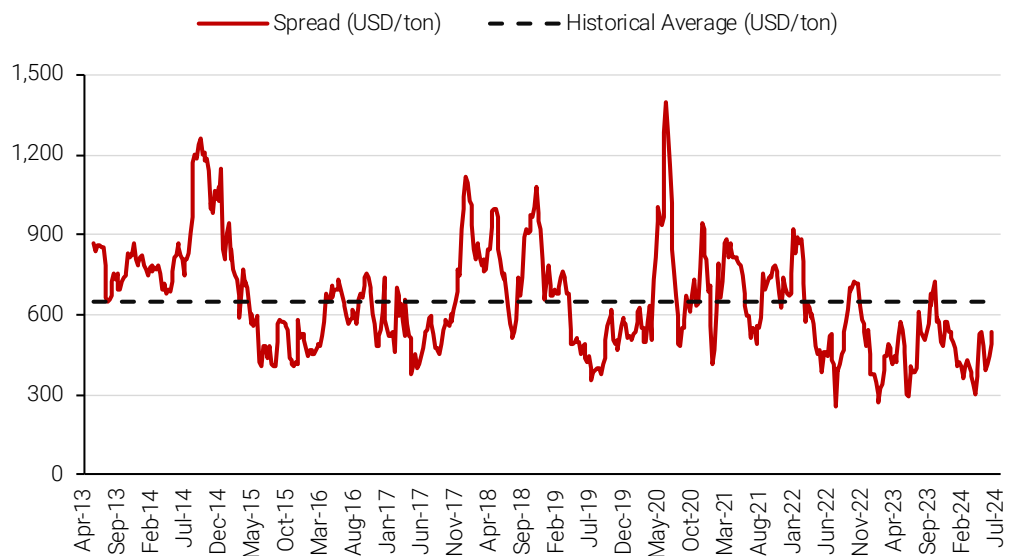
Exhibit 21: Agrochemicals export value (US\$ mn), volumes (MT) and prices (US\$/ton), 2022-24



Source: Ministry of Commerce, Kotak Institutional Equities

International phenol spreads remain below the decadal average

Exhibit 22: International phenol spreads



Source: Bloomberg, Kotak Institutional Equities

Prices of HFC refrigerants have risen sharply over the past year in China, but agrochemicals and battery materials remain depressed

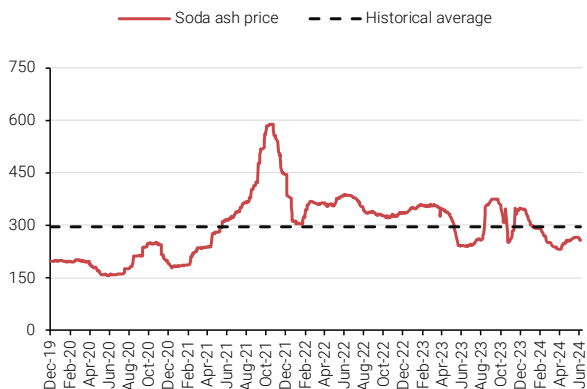
Exhibit 23: China prices across key chemical categories

Product name	Unit	Region	Latest	% change				Relevant for
			Price	1W	1M	3M	12M	
Fluorochemicals								
Fluorospar/Fluorite	RMB/ton	China	3,773	-1%	0%	13%	21%	NFIL, SRF
AHF	RMB/ton	China	10,740	0%	2%	12%	2%	NFIL, SRF
R22	RMB/ton	China	30,000	0%	3%	33%	58%	NFIL, SRF
R134a	RMB/ton	China	29,000	0%	-9%	-11%	29%	NFIL, SRF
R125	RMB/ton	China	34,500	-5%	-15%	-22%	47%	NFIL, SRF
R32	RMB/ton	China	34,000	-3%	-6%	28%	147%	NFIL, SRF
PTFE	RMB/ton	China	42,500	0%	0%	0%	-3%	GFL
PVDF	RMB 10K/ton	China	6.0	0%	0%	0%	-40%	
Basic Chemicals								
Acetone	US\$/ton	China	1,143	0%	-5%	-10%	-34%	DN (FG)
Bromine, Intl	US\$/ton	China	3,211	1%	13%	8%	23%	NEOGEN (RM)
Ethyl acetate	US\$/ton	China	816	-1%	-3%	-3%	-6%	GNFC, JUBILINGR, LXCHEM (FG)
Isopropyl alcohol	US\$/ton	China	1,060	-1%	-3%	4%	35%	DN, DFCPL (FG)
Phenol	US\$/ton	China	1,129	-1%	6%	8%	20%	VO, CLEAN (RM), DN (FG)
Toluene	US\$/ton	China	1,022	-2%	-2%	-1%	5%	ARTO (RM)
Vinyl acetate monomer	US\$/ton	China	799	0%	-4%	-18%	-3%	PIDI (RM)
Chemical spreads								
Phenol	US\$/ton	China	492	10%	-24%	29%	29%	DN (FG)
Agrochemicals								
Herbicides								
Glufosinate	RMB/ton	China	54,500	0%	-2%	-4%	-17%	
PNCB	RMB/ton	China	7,800	0%	4%	-1%	20%	
Metolachlor	RMB/ton	China	33,000	0%	0%	-6%	-34%	
Metribuzin	RMB/ton	China	75,000	0%	0%	0%	-18%	
2,4-D	RMB/ton	China	14,500	4%	14%	19%	16%	ATLP (FG)
Pendimethalin	RMB/ton	China	50,000	0%	-5%	-12%	-20%	
Clethodim	RMB/ton	China	66,000	0%	0%	-1%	-14%	
Insecticides								
Acephate	RMB/ton	China	45,000	0%	0%	-6%	-13%	
DMPAT	RMB/ton	China	22,500	0%	0%	-2%	-12%	
Imidacloprid	RMB/ton	China	76,000	-3%	-3%	-5%	-16%	
Cypermethrin	RMB/ton	China	65,000	0%	0%	16%	8%	
Lufenuron	RMB/ton	China	145,000	0%	0%	-2%	-17%	
Chlorantraniliprole	RMB/ton	China	242,500	0%	-4%	-15%	-44%	
Acetamiprid	RMB/ton	China	70,000	0%	0%	0%	-15%	
Fungicides								
Mancozeb	RMB/ton	China	23,000	0%	0%	0%	0%	
Difenoconazole	RMB/ton	China	94,000	0%	-1%	-2%	-20%	
Tebuconazole	RMB/ton	China	44,000	0%	0%	0%	-8%	
Propiconazole	RMB/ton	China	76,000	0%	-4%	-4%	-37%	
Hexaconazole	RMB/ton	China	90,000	0%	0%	-2%	-14%	
New materials								
NCM	RMB/ton	China	125,000	-2%	-4%	-5%	-26%	
LFP	RMB/ton	China	40,700	-1%	-4%	-6%	-34%	
Anode materials	RMB/ton	China	33,138	0%	0%	-6%	-28%	
LiPF ₆	RMB/ton	China	62,500	-2%	-6%	-12%	-34%	NEOGEN (FG)
Electrolyte	RMB/ton	China	20,750	-2%	-3%	-3%	-12%	NEOGEN (FG)
LiFSi	RMB/ton	China	40,000	0%	0%	0%	-84%	
Battery separator	RMB/m ²	China	0.4	0%	0%	0%	-55%	
Vinylene Carbonate	RMB/ton	China	52,000	0%	0%	0%	-17%	
Lithium battery	RMB/set	China	4.2	0%	-2%	-56%	-56%	
Sodium battery	RMB/ton	China	180,000	0%	0%	0%	-28%	

Source: Industry data, Baiinfo, Kotak Institutional Equities

China soda ash spot prices have not recovered much

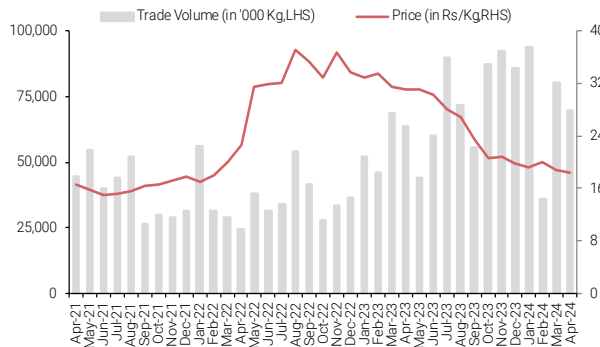
Exhibit 24: China soda ash spot prices (US\$/ton)



Source: Bloomberg, Kotak Institutional Equities

Soda ash import prices into India remain weak, volumes high

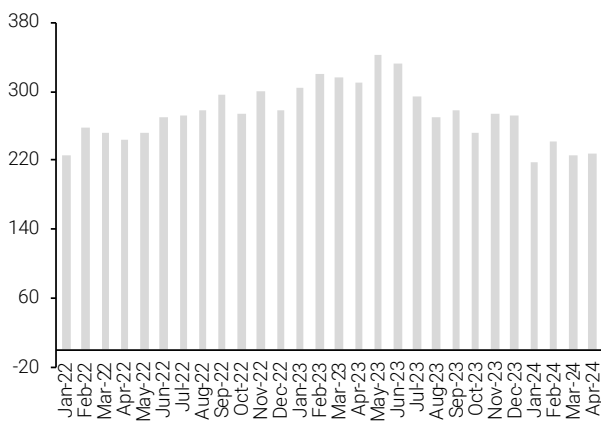
Exhibit 25: Soda ash import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Not much of a recovery in US soda ash export prices, either

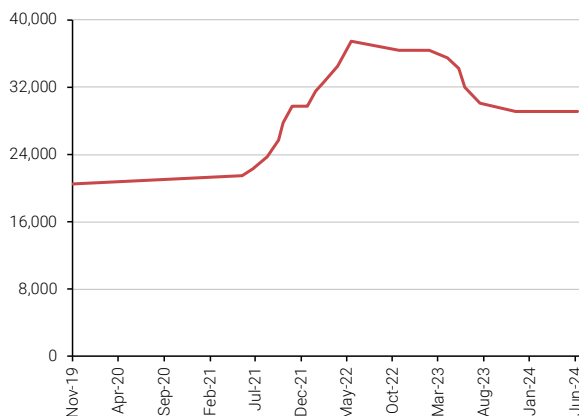
Exhibit 26: USA soda ash export prices (US\$/ton)



Source: USITC, Kotak Institutional Equities

Tata Chemicals' India list price has not changed since Nov 2023

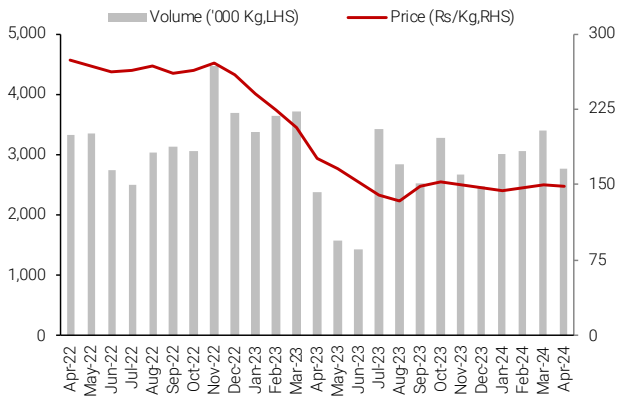
Exhibit 27: Tata Chemicals soda ash price (Rs/ton)



Source: Company, Kotak Institutional Equities

2,4-D export prices have not recovered much

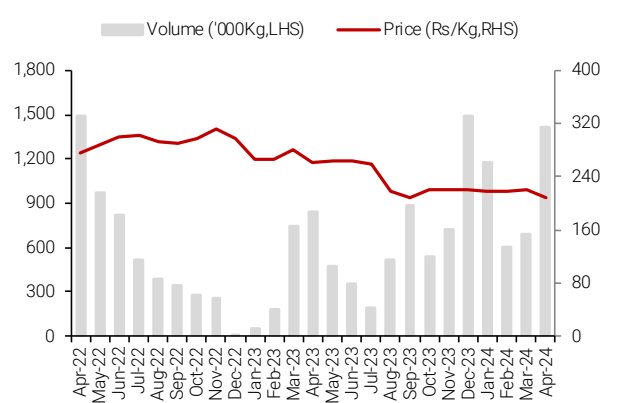
Exhibit 28: 2,4-D export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Para-cresol export volumes picked up in April 2024

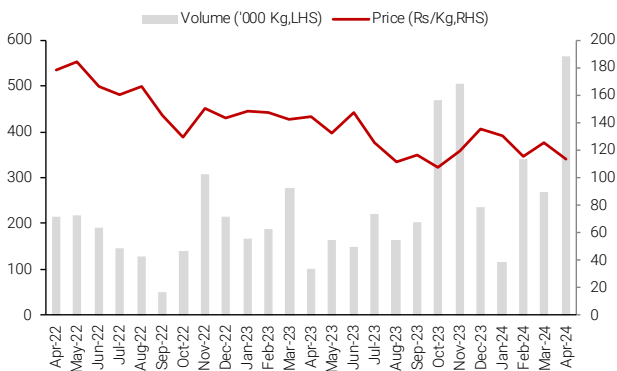
Exhibit 29: Para-cresol export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Sulfur black imports into India remained heavy in April 2024

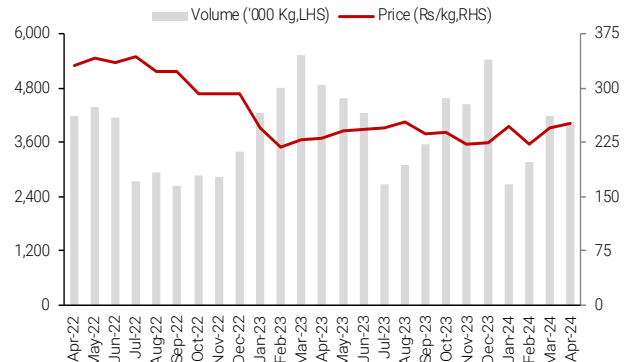
Exhibit 30: Sulfur black import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Epoxy resin import prices picked up slightly

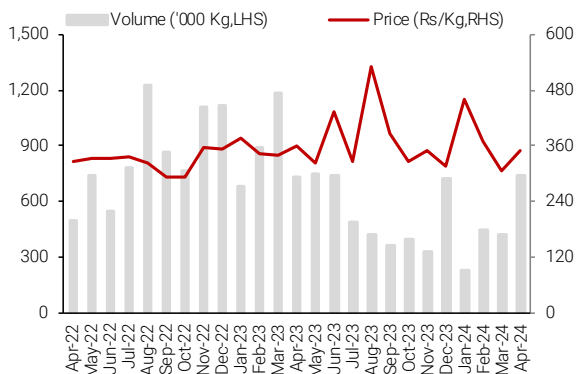
Exhibit 31: Epoxy resin import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

R134a import volumes picked up in April 2024

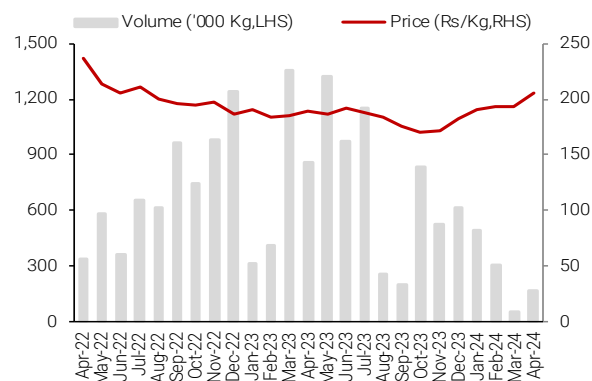
Exhibit 32: R134a import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

R32 import prices have been on the rise

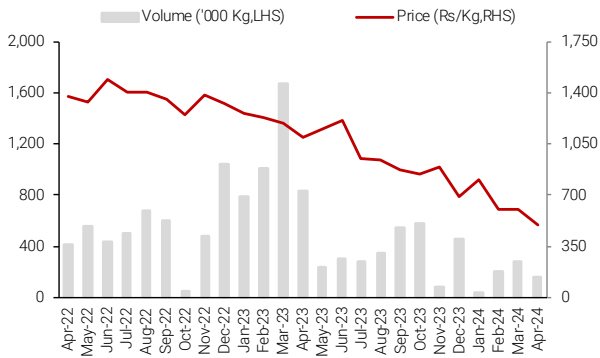
Exhibit 33: R32 import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

R125 export prices continue to decline

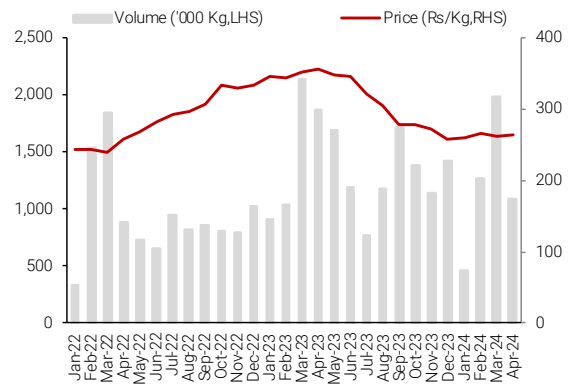
Exhibit 34: R125 export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

R22 export prices appear to have bottomed out

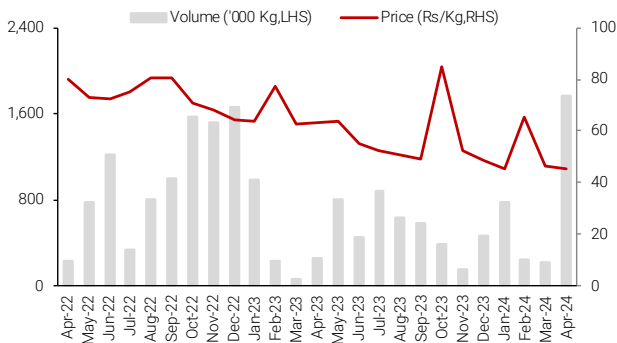
Exhibit 35: R22 export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Sodium nitrite imports into India spiked in April 2024

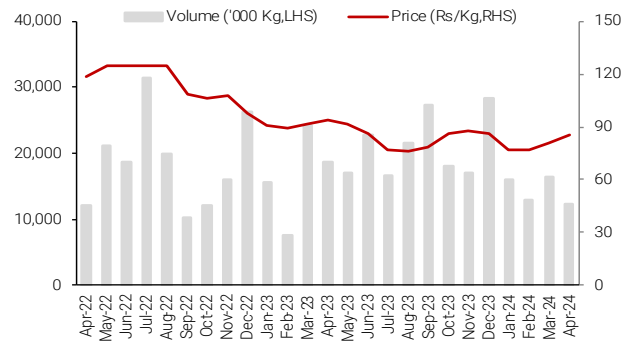
Exhibit 36: Sodium nitrite import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Phenol import volumes have declined

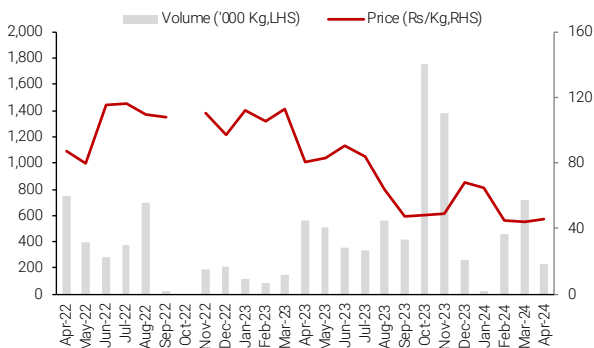
Exhibit 37: Phenol import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

ONCB prices have been on the decline

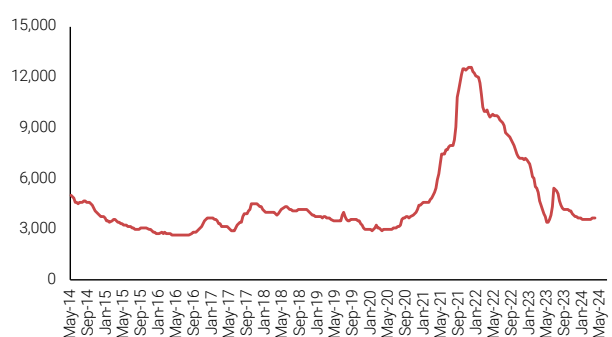
Exhibit 38: O-nitrochlorobenzene export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Glyphosate prices do not show any signs of recovering

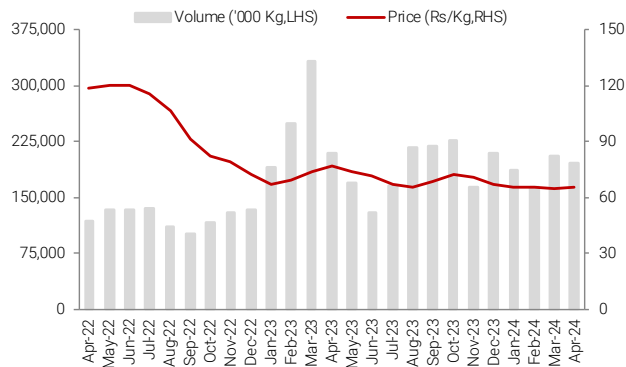
Exhibit 39: Glyphosate China prices (USD/ton)



Source: Bloomberg, Kotak Institutional Equities

PVC import volumes and prices remain steady

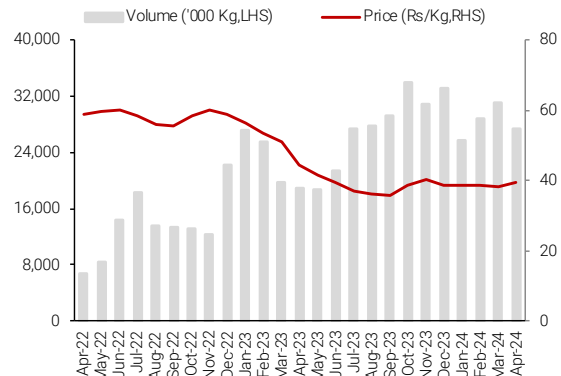
Exhibit 40: PVC import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Caustic soda export volumes have risen, but not prices

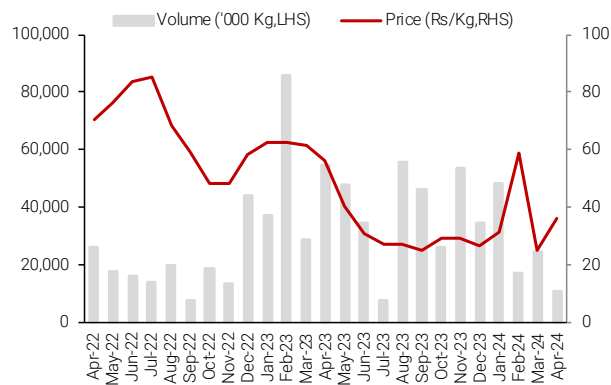
Exhibit 41: Caustic soda export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Ammonium nitrate import volumes have declined

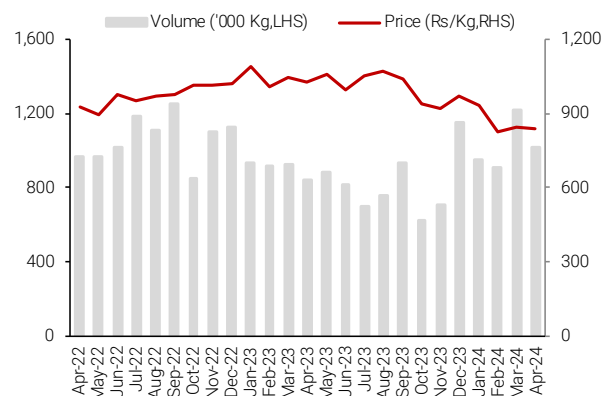
Exhibit 42: Ammonium nitrate import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

PTFE export prices have been weakening

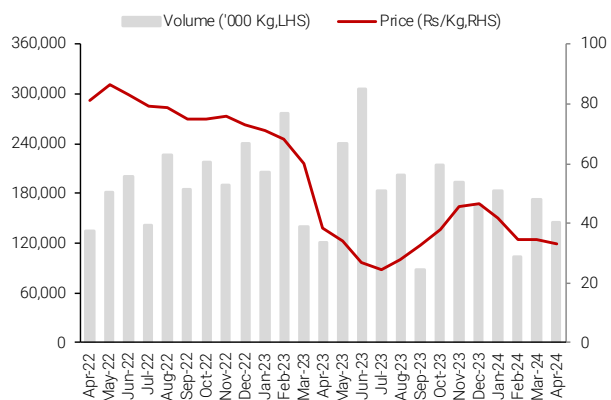
Exhibit 43: PTFE export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Ammonia import volumes have fallen

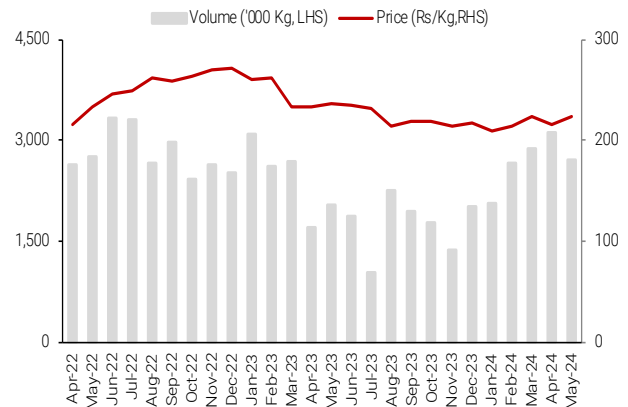
Exhibit 44: Ammonia import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

ATBS export volumes have recovered

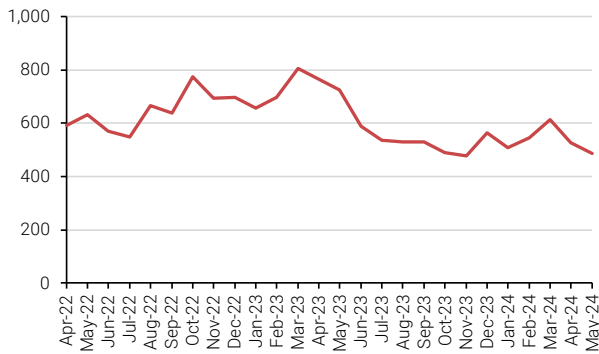
Exhibit 45: ATBS export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

Pendimethalin export prices remain subdued

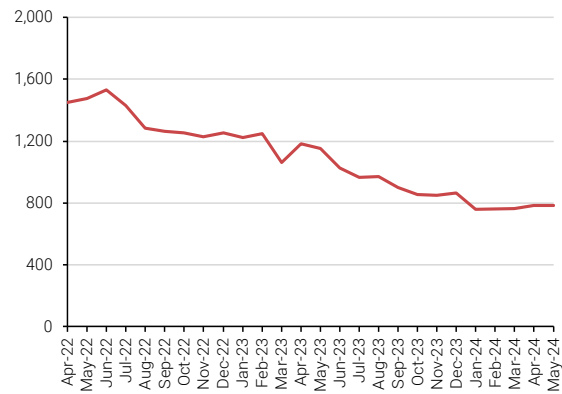
Exhibit 46: Pendimethalin export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

Metribuzin prices have halved over the past two years

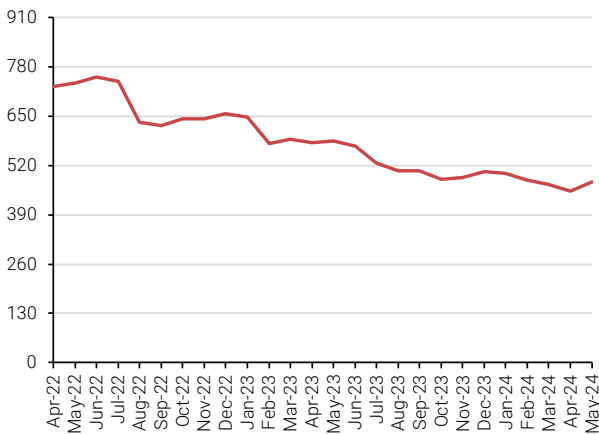
Exhibit 47: Metribuzin export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

Acephate export prices remain near lows

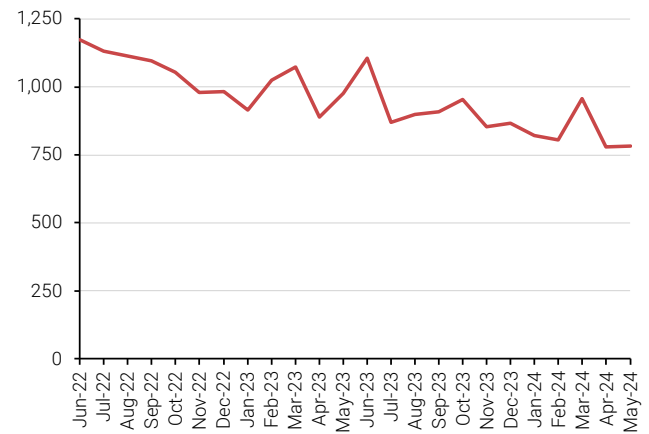
Exhibit 48: Acephate export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

Hexaconazole export prices remain under pressure

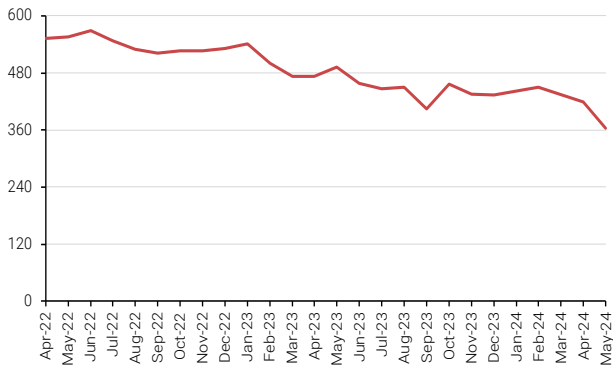
Exhibit 49: Hexaconazole export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

S-metolachlor export prices continue to decline

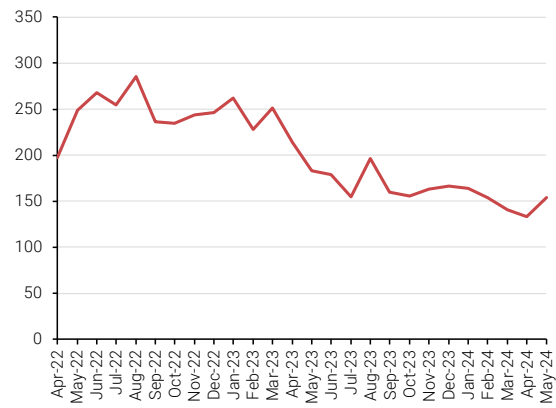
Exhibit 50: S-metolachlor export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

Mancozeb prices bounced a little in May 2024

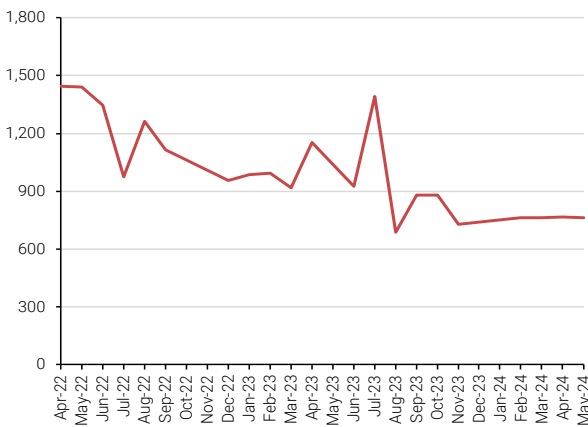
Exhibit 51: Mancozeb export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

Tebuconazole export prices have flattened out at low levels

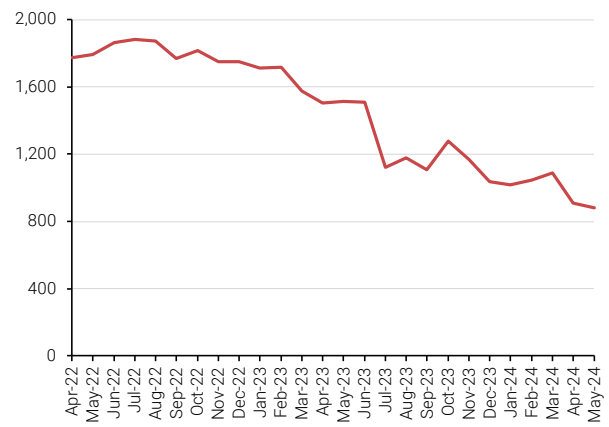
Exhibit 52: Tebuconazole export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

Propiconazole prices remain in free fall

Exhibit 53: Propiconazole export prices from India (Rs/Kg)



Source: Trade data, Kotak Institutional Equities

Exhibit 54: Prices of other important basic chemicals outside of China

Product name	Unit	Region	Latest	% change				Relevant for
			Price	1W	1M	3M	12M	
Basic Chemicals								
Acetic acid, local	Rs/kg	India	57	0%	0%	-2%	8%	LXCHEM, JUBLINGR (RM)
Acrylonitrile	US\$/ton	SE Asia	1,285	0%	-2%	0%	3%	VO (RM)
Benzene	US\$/ton	India	1,015	5%	5%	1%	-25%	ARTO (RM)
BOPP film	Rs/kg	India	176	5%	22%	26%	21%	SRF (FG)
Chloroform	US\$/kg	India	0.18	0%	-45%	-27%	-55%	NFIL (RM)
Ethylene dichloride	US\$/kg	India	0.20	0%	-39%	-47%	-46%	CHEMPLAS, FINOLEX, RIL (RM)
PVC	Rs/kg	India	80	0%	-2%	-6%	-16%	CHEMPLAS, DCM, DCW, FINOLEX, RIL (FG)
Sodium nitrite	US\$/kg	India	0.50	0%	-5%	0%	-30%	DN (FG)
Fertilizers								
Ammonia, local	US\$/ton	India	397	12%	29%	2%	29%	
Phosphoric acid, local	US\$/ton	India	948	0%	0%	-2%	-2%	CRIN (RM)
Rock phosphate	Index	Index	153	0%	0%	0%	-56%	CRIN (RM)
Urea, local	US\$/ton	India	344	0%	0%	0%	22%	CHMB (FG)
Energy prices								
Brent crude	US\$/bbl		87	2%	8%	0%	17%	
Coal	US\$/ton	Indonesia	123	8%	8%	12%	-36%	
Natural Gas	US\$/mn BTU	US	3	-4%	11%	73%	3%	
Natural Gas	GBP/ mn BTU	UK	10	0%	0%	12%	2%	

Source: Bloomberg, Kotak Institutional Equities

“Each of the analysts named below hereby certifies that, with respect to each subject company and its securities for which the analyst is responsible in this report, (1) all of the views expressed in this report accurately reflect his or her personal views about the subject companies and securities, and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report: Abhijit Akella, Sumit Kumar.”

Ratings and other definitions/identifiers

Definitions of ratings

BUY. We expect this stock to deliver more than 15% returns over the next 12 months.

ADD. We expect this stock to deliver 5-15% returns over the next 12 months.

REDUCE. We expect this stock to deliver -5+5% returns over the next 12 months.

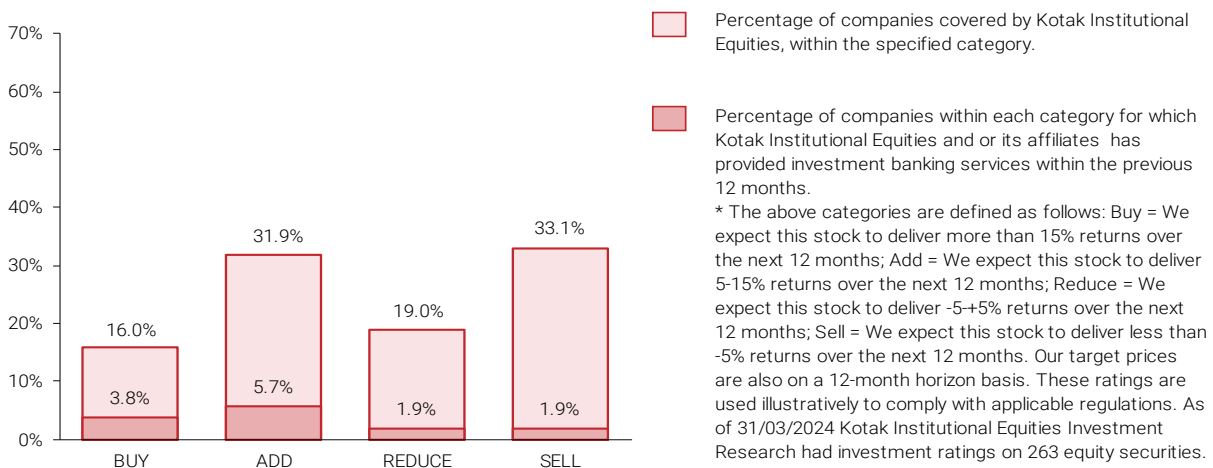
SELL. We expect this stock to deliver <-5% returns over the next 12 months.

Our Fair Value estimates are also on a 12-month horizon basis.

Our Ratings System does not take into account short-term volatility in stock prices related to movements in the market. Hence, a particular Rating may not strictly be in accordance with the Rating System at all times.

Distribution of ratings/investment banking relationships

Kotak Institutional Equities Research coverage universe



Source: Kotak Institutional Equities

As of March 31, 2024

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The coverage view represents each analyst’s overall fundamental outlook on the Sector. The coverage view will consist of one of the following designations: **Attractive, Neutral, Cautious.**

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Corporate Office

Kotak Securities Ltd.
27 BKC, Plot No. C-27, "G Block" Bandra Kurla
Complex, Bandra (E) Mumbai 400 051, India
Tel: +91-22-43360000

Overseas Affiliates

Kotak Mahindra (UK) Ltd
8th Floor, Portoken House
155-157 Minorities, London EC3N 1LS
Tel: +44-20-7977-6900

Kotak Mahindra Inc
PENN 1,1 Pennsylvania Plaza,
Suite 1720, New York, NY 10119, USA
Tel: +1-212-600-8858

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Details of	Contact Person	Address	Contact No.	Email ID
Customer Care/ Complaints	Mr. Ritesh Shah	Kotak Towers, 8th Floor, Building No.21, Infinity Park, Off Western Express Highway, Malad (East), Mumbai, Maharashtra - 400097	18002099393	ks.escalation@kotak.com
Head of Customer Care	Mr. Tabrez Anwar		022-42858208	ks.servicehead@kotak.com
Compliance Officer	Mr. Hiren Thakkar		022-42858484	ks.compliance@kotak.com
CEO	Mr. Shripal Shah		022-42858301	ceo.ks@kotak.com

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