

# **Specialty Chemicals**

India

Sector View: Neutral NIFTY-50: 21,983 February 29, 2024

# **Crop & Chemical Dashboard: Grain prices under pressure**

International prices of major grains—corn, wheat and soybeans—corrected further last month amid indications of ample supply. Commodity traders have increased their short positions on these three grains to the highest levels in almost 20 years. In the chemical markets, data points reflect continued softness overall, with output growth still muted and prices lower yoy. A meaningful recovery likely remains at least two quarters away.

#### Chemical industry data points indicate continued softness

India's exports of organic and inorganic chemicals fell 6.5% mom but rose 0.3% yoy in January 2024, while imports dropped 13.7%/18.0% mom/yoy. US chemical production for January 2024 was lower by 1.3%/0.2% mom/yoy, while chemical railcar holdings—a measure of volumes—increased 3.4% yoy on a 13-week moving average basis for the week ending February 17. US data indicates continued softness in pricing, with chemicals producer prices down 5.7% yoy and import prices down 1.8%/2.2% mom/yoy. In Europe, chemical output rose 1.7% yoy but fell 2.9% mom; capacity utilization remains low at 74.7%. Certain end-use industries such as dyes & pigments are showing early signs of recovery, whereas others such as agrochemicals continue to destock, and a recovery is still two quarters away.

#### Agricultural crop price cycle has weakened

US futures prices of corn, soybeans and wheat softened another 4-6% sequentially during the past month and are down 24-34% yoy. The weakness is due to rising supplies in the global market. Commodity traders have increased their short positions on these three grains to the highest levels in almost the past 20 years in expectation of a global supply glut. In contrast, farmers are holding on to their stocks (to avoid selling at depressed prices) and are believed to be reducing corn and wheat acreages in the US by 4-5%. This could potentially drive a rebound in grain prices, particularly if climate or geopolitics turn adverse. In India, however, the correction in crop prices has been considerably less significant than it has been overseas. Rainfall remained deficient across most of the country in February, while reservoir levels remain low in south India.

# **Chemical price trends**

Softness in chemical prices continues in general, although sodium nitrite and chloroform prices did tick up 13-14% mom in January 2024. Soda ash spot prices in China have corrected in recent weeks after a short-lived spike, while soda ash import prices into India, too, remain weak. International phenol spreads remain below their decadal average despite certain production outages globally. Prices of Atul's key product categories, including 2,4-D herbicide, p-cresol and epoxy resins, remain soft, whereas sulfur black has recovered somewhat off a depressed base. In refrigerants, average prices of R-134a have increased in recent months, although the rise seems attributable primarily to a favorable mix shift. R-32 prices have softened, whereas R-22 prices have firmed up modestly of late.

#### **Company data and valuation summary**

Ticker	CMP(Rs)	FV (Rs)	Rating	Upside (%)
ARTO IN	652	480	SELL	(26)
ATLP IN	6,150	4,050	SELL	(34)
CLEAN IN	1,423	1,540	ADD	8
DN IN	2,204	2,190	REDUCE	(1)
NFIL IN	3,044	3,120	REDUCE	2
SRF IN	2,391	2,660	BUY	11
TTCH IN	949	780	SELL	(18)
VO IN	1,610	1,100	SELL	(32)
BYRCSIN	5,742	5,190	SELL	(10)
GOAGRO IN	516	600	ADD	16
PLIN	3,650	3,830	ADD	5
RALI IN	240	220	SELL	(8)
UPLL IN	479	390	SELL	(19)

	P/E(	x)	EV/EBIT	DA(x)
Ticker	2024E	2025E	2024E	2025E
ARTO IN	57.6	43.4	20.9	16.9
ATLP IN	45.6	36.5	20.2	17.1
CLEAN IN	63.3	47.4	34.0	20.4
DN IN	39.0	33.7	24.7	21.2
NFIL IN	68.8	42.0	24.3	18.0
SRF IN	52.9	36.8	20.6	15.0
TTCH IN	20.9	29.3	8.8	8.1
VO IN	55.0	42.0	28.7	22.5
BYRCS IN	31.7	28.1	19.4	17.6
GOAGRO IN	29.4	22.2	13.4	10.3
PIIN	33.8	32.1	23.2	20.7
RALI IN	29.0	22.9	12.5	10.9
UPLL IN	(26.2)	57.6	7.9	6.1

Source: Bloomberg, Company data, Kotak Institutional Equities estimates

Prices in this report are based on the market close of February 29, 2024

#### **Quick Numbers**

India's exports of organic and inorganic chemicals declined 6.5% mom but increased 0.3% yoy

Imports declined 13.7%/18% mom/yoy

#### Related Research

- → Specialty Chemicals: Crop & Chemical
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# **Agriculture dashboard**

# International futures prices of corn, soybeans and wheat continue to correct, are down sharply yoy

Exhibit 1: International crop futures prices

	Unit	28-Feb-24	29-Jan-24	28-Feb-23	mom	yoy
US crop futures prices						
Coffee	(US\$/lb)	1.9	1.9	1.9	2.2%	1.5%
Cotton	(US\$/lb)	0.9	0.8	0.8	6.3%	7.7%
Corn	(US\$/bushel)	4.1	4.4	6.3	-6.1%	-34.4%
Rice	(US\$/cwt)	17.9	18.1	17.0	-0.8%	5.7%
Soybean	(US\$/bushel)	11.3	11.9	14.9	-5.0%	-23.9%
Sugar	(USc/lb)	22.4	22.3	17.5	0.7%	28.0%
Wheat	(US\$/bushel)	5.7	6.0	7.6	-4.8%	-23.9%
Brazil crop futures price	s					
Corn	US\$/60 kg-bag	15.5	17.3	16.7	-10.2%	-6.9%
Soybean	US\$/60 kg-bag	23.3	23.5	32.4	-0.9%	-28.1%
Europe futures prices						
Wheat	US\$/ ton	228.1	243.8	273.9	-6.4%	-16.7%
Malaysia futures prices						
Palm oil	US\$/ ton	842.6	838.7	926.8	0.5%	-9.1%

Note: 1 bushel of corn =  $25.401 \, \text{kg}$ , 1 bushel of wheat or soybean =  $27.216 \, \text{kg}$ , 1 cwt =  $45.359 \, \text{kg}$ 

Source: Bloomberg, Kotak Institutional Equities

# In India, crop prices have generally held up better thus far than they have overseas

Exhibit 2: Spot prices of crop commodities in India

	27-Feb-24	27-Jan-24	15-Feb-23	mom	yoy
Crop prices (Rs/quintal)					
Paddy	2,380	2,353	1,985	1.2%	19.9%
Wheat	2,406	2,553	2,464	-5.7%	-2.3%
Maize	2,158	2,145	2,095	0.6%	3.0%
Soybean	4,294	4,333	5,130	-0.9%	-16.3%
Cotton	6,767	6,572	7,845	3.0%	-13.7%
Ground nut	6,256	6,037	6,825	3.6%	-8.3%
Rubber (natural)	15,444	15,183	13,600	1.7%	13.6%
Vegetable prices (Rs/qu	uintal)				
Cabbage	1,698	1,587	1,110	7.0%	53.0%
Cauliflower	1,758	1,860	1,220	-5.5%	44.1%
Onion	1,962	2,080	1,684	-5.6%	16.5%
Potato	1,269	1,146	1,046	10.7%	21.3%
Tomato	1,981	2,067	1,320	-4.2%	50.1%

Source: Agmarknet, Kotak Institutional Equities

# Global estimated stock-to-use ratios underwent only modest revisions in February 2024

Exhibit 3: USDA world agriculture demand and supply estimates

					Jan-24	Feb-24
Crop	Unit	2020-21	2021-22	2022-23 Estimate	2023-24 Projection	2023-24 Projection
Corn - world	mn MT					
Production		1,129.4	1,215.9	1,155.9	1,235.7	1,232.6
Consumption		1,144.0	1,198.3	1,166.2	1,211.1	1,210.8
Closing stocks		292.8	310.5	300.3	325.2	322.1
Stock-to-use		25.6%	25.9%	25.7%	26.9%	26.6%
Corn - world less China	mn MT					
Production		868.8	943.4	878.4	946.9	943.7
Consumption		859.0	907.4	866.6	905.1	904.8
Closing stocks		87.1	101.4	94.5	113.4	110.2
Stock-to-use		10.1%	11.2%	10.9%	12.5%	12.2%
Cotton - world	mn 480-po	und bales				
Production		111.5	114.5	116.6	113.2	112.8
Consumption		123.3	116.1	111.2	112.4	112.5
Closing stocks		86.3	76.4	83.2	84.4	83.7
Stock-to-use		70.0%	65.8%	74.9%	75.1%	74.4%
Rice - world	mn MT					
Production		509.3	513.1	513.0	513.5	513.7
Consumption		503.7	517.8	519.9	522.1	522.9
Closing stocks		187.3	183.3	176.4	167.3	167.2
Stock-to-use		37.2%	35.4%	33.9%	32.0%	32.0%
Soybean - world	mn MT					
Production		368.6	360.4	378.1	399.0	398.2
Consumption		364.0	364.0	364.9	383.7	383.0
Closing stocks		100.4	98.0	103.6	114.6	116.0
Stock-to-use		27.6%	26.9%	28.4%	29.9%	30.3%
Wheat - world	mn MT					
Production		774.4	780.1	789.7	784.9	785.7
Consumption		787.7	791.2	790.9	796.4	797.5
Closing stocks		286.3	272.3	271.6	260.0	259.4
Stock-to-use		36.3%	34.4%	34.3%	32.6%	32.5%

Source: USDA, Kotak Institutional Equities

#### For India, the USDA has cut estimated inventories of wheat and cotton

Exhibit 4: USDA India agriculture demand and supply estimates

					Jan-24	Feb-24
Crop	Unit	2020-21	2021-22	2022-23 Estimates	2023-24 Projection	2023-24 Projection
Cotton	mn 480-pound	bales				
Production		27.6	24.3	26.3	25.0	25.0
Consumption		26.0	25.0	23.5	23.7	23.7
Closing stocks		11.9	8.4	11.8	12.8	12.5
Stock-to-use		45.9%	33.6%	50.3%	54.1%	52.8%
Rice	mn MT					
Production		124.4	129.5	135.8	132.0	132.0
Consumption		101.1	110.5	114.5	118.0	118.0
Closing stocks		37.0	34.0	35.0	33.0	33.0
Stock-to-use		36.6%	30.8%	30.6%	28.0%	28.0%
Wheat	mn MT					
Production		107.9	109.6	104.0	110.6	110.6
Consumption		102.2	109.9	108.7	109.9	111.0
Closing stocks		27.8	19.5	9.5	10.0	9.0
Stock-to-use		27.2%	17.7%	8.7%	9.1%	8.1%

Source: USDA, Kotak Institutional Equities

# World stock-to-use ratios have moved up for corn (ex-China) and soybeans in recent years, weighing on their prices

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

	2015	2016	2017	2018	2019	2020	2021	2022	2023E	2024P
Corn	21%	22%	32%	31%	28%	27%	26%	26%	26%	27%
non-China	14%	14%	15%	14%	13%	12%	10%	11%	11%	12%
Cotton	100%	85%	69%	66%	67%	94%	70%	66%	75%	74%
Rice	24%	28%	31%	34%	37%	37%	37%	35%	34%	32%
Soybean	26%	25%	29%	29%	33%	27%	28%	27%	28%	30%
Wheat	31%	34%	35%	38%	39%	40%	36%	34%	34%	33%

Source: USDA, Kotak Institutional Equities

# Weather conditions have generally been reasonably favorable, permitting larger harvests

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Europe	Continued anomalous warmth accelerated winter grain and oilseed green up and development, with additional rain in central and							
Lurope	northern crop areas juxtaposed with acute short-term dryness in the Balkans.							
Latin America	Warm, showery weather favored rapid growth of summer crops in Latin America. Widespread and locally heavy showers benefited							
Latin America	immature soybeans, corn, and cotton in Brazil.							
Australia	Wet weather persisted in the east, favoring summer crop development.							
Asia	Southern showers maintained favorable moisture for rice and oil palm.							
Middle east	Mostly drier and cooler weather favored winter grain development after last week's heavy rain.							

Source: USDA, Kotak Institutional Equities

# Fertilizer prices have generally been under pressure, though urea has bounced since December 2023

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

	Average monthly prices		Price as of	% change		
Prices in USD/ton	Jan-24	Dec-23	Jan-23	23-Feb-24	mom	yoy
International prices						
Ammonia (US)	505	600	929	445	-15.8%	-45.6%
DAP (US)	580	578	775	580	0.3%	-25.2%
Phosphoric acid (China)	1062	1045	1190	NA	1.7%	-10.7%
Potassium Chloride (US)	296	312	509	NA	-5.0%	-41.8%
Rock phosphate (Global index)	153	153	300	NA	0.0%	-49.2%
Urea (US)	322	307	399	348	5.0%	-19.2%
India prices						
Ammonia	425	535	855	320	-20.6%	-50.3%
Phosphoric acid	985	985	1150	968	0.0%	-14.3%
Urea	342	402	576	323	-14.8%	-40.6%

Source: Bloomberg, Kotak Institutional Equities

# Non-urea fertilizer sales slipped yoy in January 2024; however, YTD sales are higher despite lower imports

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

	Jan-24			% yoy			YTD 2024			% yoy		
(mn MT)	Production	Sales	Import									
Urea	2.87	3.92	0.36	10%	4%	-66%	26.58	31.74	6.43	12%	0%	-12%
DAP	0.35	0.36	0.04	-11%	-28%	-92%	3.77	10.22	5.09	6%	5%	-20%
Complex fertilizers	0.80	0.84	0.06	-12%	-13%	-61%	8.19	10.47	1.83	15%	22%	-18%
MOP	NA	0.14	0.16	NA	13%	42%	NA	1.42	2.07	NA	1%	49%

Source: Department of Fertilizers, Kotak Institutional Equities

# Subsidy disbursement picked up by 160% yoy for P&K fertilizers in January 2024

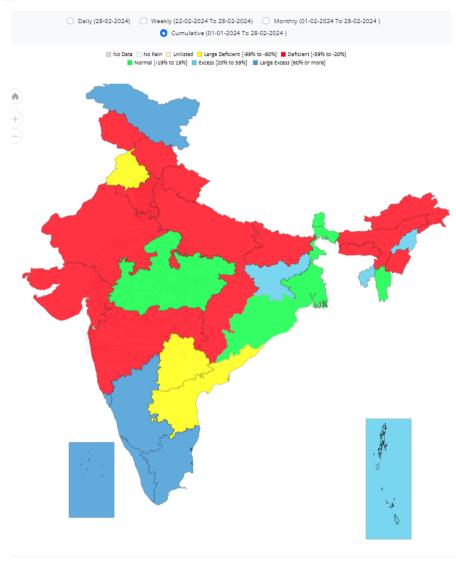
Exhibit 9: Fertilizer subsidy disbursement (Rs bn)

	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	YTD 2024
Fertilizer monthly subsidy disbursement (Rs bn)											
Urea	69	93	141	185	156	63	92	73	153	92	1,115
P&K	94	1	66	85	95	81	11	57	-	156	646
Total	162	94	206	270	251	144	103	130	153	248	1,760
Growth (yoy, %)											
Urea	39	67	(3)	100	14	(15)	32	(80)	(37)	(53)	(22)
P&K	1,387	(18)	5,301	(20)	364	(39)	(92)	(56)	(100)	160	(1)
Total	191	65	42	35	60	(31)	(52)	(74)	(47)	(4)	(15)

Source: Department of Fertilizers, Kotak Institutional Equities

#### Most parts of India experienced deficient rainfall in February 2024

# Exhibit 10: Sub-divisional rainfall map of India in February 2024



Source: IMD, Kotak Institutional Equities

# Deficit rainfall has depleted water reservoir levels in southern India

Exhibit 11: Region-wise water reservoir levels (bn cubic meter) as of February 22, 2024

Regions	Current storage	Last year's storage	10 years average storage
Northern	7.8	9.4	8.0
Eastern	11.4	10.4	11.8
Western	20.5	24.4	19.0
Central	25.4	27.0	24.3
Southern	15.9	27.0	22.1

Source: Central Water Commission, Kotak Institutional Equities



#### Livestock market watch: Broiler prices rose sequentially in January 2024

Exhibit 12: Prices of broiler (Rs/kg), egg (Rs/100 eggs) and layer (Rs/kg)

	Unit	Jan-24	Dec-23	Jan-23	mom	yoy
Average broiler prices	(Rs/kg)	96	87	110	10%	-13%
Average egg prices	(Rs/100 eggs)	586	588	533	0%	10%
Average layer prices	(Rs/kg)	48	NA	57	NA	-16%

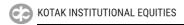
Source: Poultry Bazaar

# 9(3) agrochemical registration watch

Exhibit 13: Registration committee decisions on registration of new formulations/technicals in 453rd meeting (held on Jan 16, 2024)

Company	Product	Comments
M/s Seedling India	Dimethomorph 12% + Pyraclostrobin 6.7%	Registration rejected for indigenous manufacture of Dimethomorph 12% + Pyraclostrobin 6.7% WG under section 9(3) FIM vs FIT
M/s Seedling India	Trifloxysrobin 6% + Thiamethoxam 24% + Thiophanate methyl 9.5% FS	Registration granted and approved for indigenous manufacture of Trifloxysrobin 6% + Thiamethoxam 24% + Thiophanate methyl 9.5% FS under section 9(3) FIM
M/s Gharda Chemicals	Fipronil 15% + Chlorantraniliprole 5% SC	Registration granted and approved for indigenous manufacture of Fipronil 15% + Chlorantraniliprole 5% SC under section $9(3)$ FIM
M/s GSP Crop Science	Pymetrozine 30% + Tebuconazole 37% WG	Registration granted and approved for indigenous manufacture of Pymetrozine 30% + Tebuconazole 37% WG under section 9(3) FIM
M/s Dhanuka Agritech	Fomesafen 12.5% + Quizalofop ethyl 4.68% EC	Registration granted and approved for indigenous manufacture of Fomesafen 12.5% + Quizalofop ethyl 4.68% EC under section 9(3) FIM
M/s UPL	Cartap hydrochloride 7.5% + Chlorantraniliprole 0.4% GR	Registration granted and approved for indigenous manufacture of Cartap hydrochloride 7.5% + Chlorantraniliprole 0.4% GR under section 9(3) FIM
M/s Syngenta India	cyantraniliprole 10% + Pymetrozine 50% WG	Registration granted and approved for indigenous manufacture of cyantraniliprole 10% + Pymetrozine 50% WG under section 9(3) FIM
M/s Willowood Chemicals	Fenoxaprop p ethyl 5% + Chlorimuron ethyl 0.6% + Pretilachlor 50% ME	Registration granted and approved for indigenous manufacture of Fenoxaprop p ethyl 5% + Chlorimuron ethyl 0.6% + Pretilachlor 50% ME under section 9(3) FIM
M/s Willowood Chemicals	Paraquat dichloride 7.50% + Glyphosate 30% SC	Registration granted and approved for indigenous manufacture of Paraquat dichloride 7.50% + Glyphosate 30% SC under section 9(3) FIM
M/s Gharda Chemcials	Fipronil 15% + Deltamethrin 2.5% SC	Registration granted and approved for indigenous manufacture of Fipronil 15% + Deltamethrin 2.5% SC under section 9(3) FIM
M/s ADAMA India	Fomesafen 16.8% + Propaquizafop 5.2% ME	Registration granted and approved for technical import of Fomesafen 16.8% + Propaquizafop 5.2% ME under section 9(3) FI.
M/s Cheminova India	Beflubutamid technical 98.50% w/w min.	Registration has to be resubmitted in the next RC meeting with corrections as requested by the applicant.
M/s Willowood Chemicals	Mepiquat dichloride technical 98% w/w min	Registration rejected for import of Mepiquat dichloride technical 98% w/w min. under section 9(3) TI.
M/s Tropical Agrosystem India	Paraquat dichloride technical 45% w/w min	Registration deliberated for agenda and decided that clarification for change of address may be sought from the applicant for Paraquat dichloride technical 45% w/w min under section 9(3) TI.
M/s ATGC Biotech	SCLP BFSB (E11 HAD and E11 HDL)	Registration granted and approved for indigenous manufacture of SCLP BFSB (E11 HAD and E11 HDL). under section 9(3) TIM.
M/s Natco Pharma	Cyantraniliprole technical 93% w/w min.	Registration granted and approved for indigenous manufacture of Cyantraniliprole technical 93% w/w min. us/ $9(3)$ TIM vs TI.
M/s Synergia Sciences	Metofluthrin technical 96% w/w min.	Registration granted and approved for indigenous manufacture of Metofluthrin technical 96% w/w min. us/ 9(3) TIM vs TI
M/s GSP Crop Science	Methoxyfenozide technical 97% w/w min.	Registration granted and approved for indigenous manufacture of Methoxyfenozide technical 97% w/w min. us/ 9(3) FIM.
M/s GSP Crop Science	Methoxyfenozide 20% + Chlorantraniliprole 5% SC	Registration granted and approved for indigenous manufacture of Methoxyfenozide 20% + Chlorantraniliprole 5% SC us/ 9(3) FIM.
M/s Rallis India	Diclosulam 0.9% + Pendomethalin 35% SL	Registration granted and approved for indigenous manufacture of Diclosulam 0.9% + Pendomethalin 35% SL us/ 9(3) FIM
M/s ISK Biosceinces India	Pyriofenone 18% w/v SC (16.51% w/w)	Registration granted and approved for technical import of Pyriofenone 18% w/v SC (16.51% w/w) us/ 9(3) Fl.

Source: CIB, Kotak Institutional Equities



#### Rabi acreages overall ended flat yoy

Exhibit 14: Total area sown under Rabi crops as on February 2, 2024 (mn hectares)

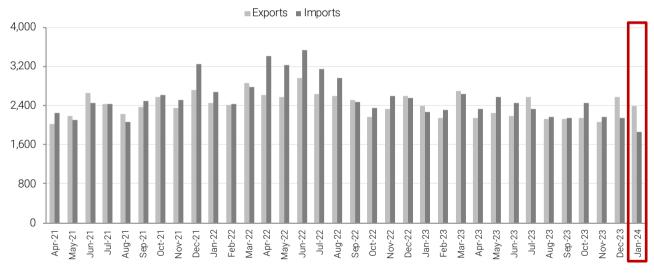
Crops (in mn ha.)	2023-24	2022-23	yoy (%)
Wheat	34.2	33.9	0.7
Rice	3.9	4.0	(2.7)
Pulses	16.0	16.6	(3.7)
Gram	10.5	11.1	(5.4)
Lentil	2.0	1.9	5.7
Coarse cereals	5.7	5.4	7.1
Jowar	2.5	2.2	12.5
Maize	2.3	2.3	2.0
Barley	0.8	0.8	8.5
Oilseeds	11.1	11.0	1.1
Mustard	10.0	9.8	2.5
Groundnut	0.5	0.6	(14.1)
Total	70.9	70.9	0.0

Source: Ministry of Agriculture, Kotak Institutional Equities

# **Chemical dashboard**

# India's chemical exports fell 6% mom but rose 0.3% yoy, whereas imports dropped 14%/18% mom/yoy in January 2024

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



# US chemical production has started to show some recovery in certain segments, whereas prices remain under pressure

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

# January 2024 3MMA % yoy change

	Production	Producer prices
Chemicals	1.8	(5.4)
Agricultural chemicals	2.2	(19.8)
Consumer products	1.8	3.3
Basic & specialty chemicals	1.8	(6.2)
Basic chemicals	6.3	(8.1)
Inorganic chemicals	(1.6)	(8.5)
Bulk Petrochem & Organics	9.0	(8.8)
Plastic resins	12.7	(6.5)
Synthetic rubber	(14.0)	(9.4)
Manufactured fibers	(9.8)	(3.5)
Specialty chemicals	(10.1)	(0.1)
Coatings	(10.3)	(0.8)
Other specialities	(10.0)	0.3
Feedstocks	n/a	(32.1)
Capacity utilization	78.0%	n/a

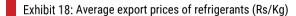
Source: American Chemistry Council, Kotak Institutional Equities

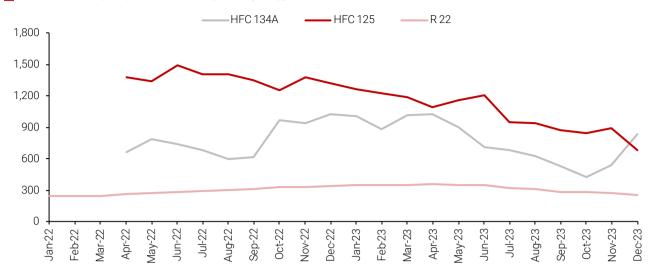
# Exhibit 17: US chemical production, exports and producer prices

		Change (9	6)
	Month	mom	yoy
Chemical Production	Jan-24	-1.3%	-0.2%
Chemical Import Prices	Jan-24	1.8%	-2.2%
Chemical Producer Prices	Jan-24	-1.0%	-5.7%

Source: American Chemistry Council, Kotak Institutional Equities

#### HFC-134a average export prices have risen in recent months (likely due to a mix shift), whereas HFC-125 prices have continued to fall

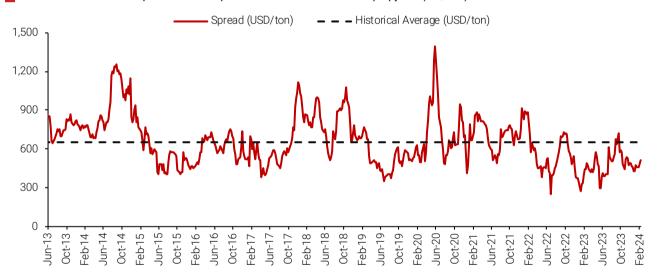




Source: Ministry of Commerce, Kotak Institutional Equities

## International phenol spreads remain below the decadal average

#### Exhibit 19: International spreads between phenol-acetone versus benzene-propylene (US\$/ton)



Source: Bloomberg, Kotak Institutional Equities

# China soda ash spot prices have corrected in the past few weeks

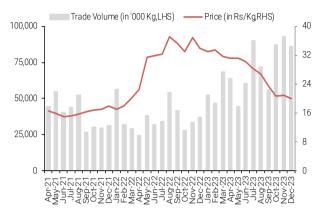
#### Exhibit 20: China spot soda-ash prices



Source: Bloomberg, Kotak Institutional Equities

# Import prices of soda ash remained under pressure in December

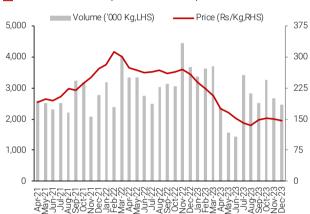
#### Exhibit 21: Soda ash import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### 2,4-D export prices remain under pressure

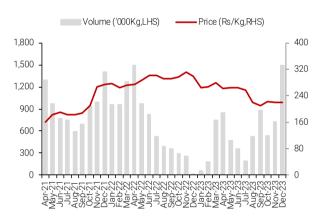
#### Exhibit 22: 2,4-D export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

# Para-cresol export volumes increased in December

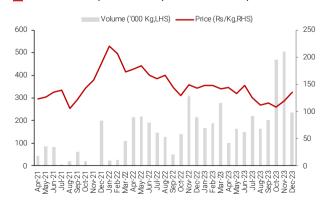
# Exhibit 23: Para-cresol export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### Sulphur black import prices have increased amid lower volumes

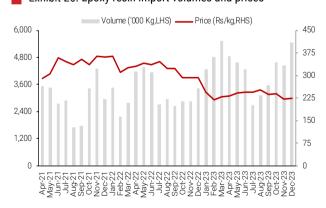
#### Exhibit 24: Sulphur black import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

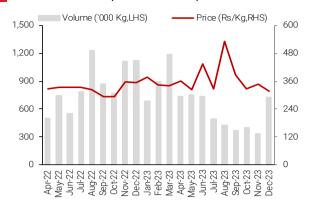
## **Epoxy resin import prices remain subdued**

#### Exhibit 25: Epoxy resin import volumes and prices



#### R134a import prices have not yet shown a revival

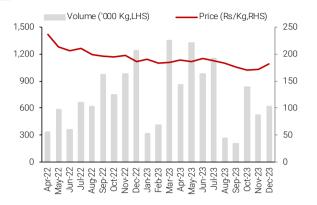
#### Exhibit 26: R134a import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### R32 import prices rose modestly in December

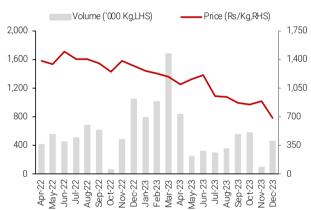
#### Exhibit 27: R32 import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### R125 export prices remain under pressure

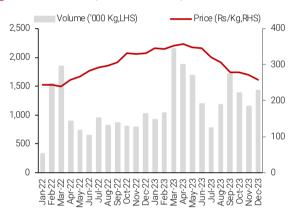
# Exhibit 28: R125 export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### R22 export prices have also been falling

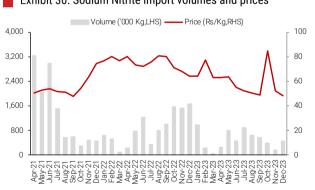
#### Exhibit 29: R22 export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### Sodium nitrite import prices remain under pressure

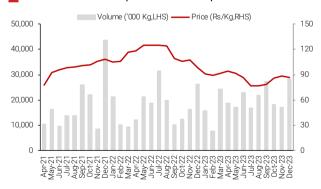
# Exhibit 30: Sodium Nitrite import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

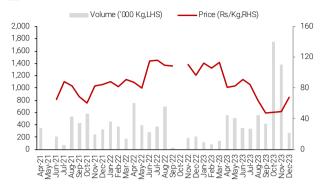
#### Phenol import prices are still well below year-ago levels





#### ONCB export prices moved up in December 2023

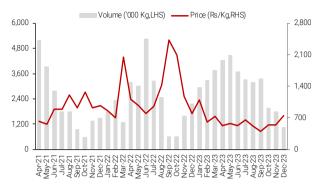
#### Exhibit 32: O-Nitrochlorobenzene export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### Glyphosate import prices have also ticked up in recent months

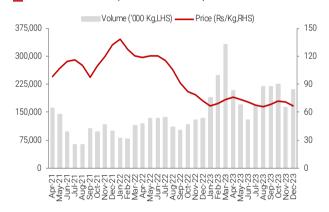
# Exhibit 33: Glyphosate import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### PVC import prices remain at depressed levels

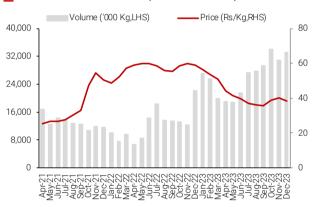
# Exhibit 34: PVC import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### Caustic soda export prices remain weak, though volumes are up

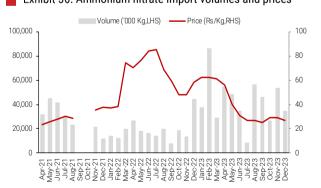
#### Exhibit 35: Caustic soda export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### Ammonium nitrate import prices remain under pressure

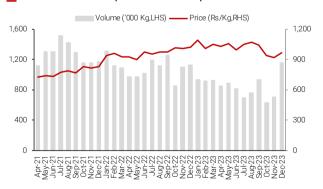
# Exhibit 36: Ammonium nitrate import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### PTFE export volumes and prices ticked up mom in December

#### Exhibit 37: PTFE export volumes and prices



#### Ammonia import prices have risen in recent months

# Exhibit 38: Ammonia import volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

#### ATBS export prices remain soft

#### Exhibit 39: ATBS export volumes and prices



Source: Ministry of Commerce, Kotak Institutional Equities

# Prices of basic chemicals generally remain significantly lower on a yoy basis

Exhibit 40: Price trends for key basic chemicals (Rs/kg)

	Latest % change							
Product name	Unit	Region	Price	1W	1M	ЗМ	12M	Relevant for
Basic Chemicals		-						
Acetic acid, local	Rs/kg	India	58	0%	2%	-11%	0%	LXCHEM, JUBLINGR (RM)
Acetone	US\$/ton	China	1,032	0%	-1%	-6%	-17%	DN (FG)
Acrylonitrile	US\$/ton	SE Asia	1,240	0%	0%	0%	-22%	VO (RM)
Bromine, int'l	US\$/ton	China	3,119	0%	-1%	-9%	-44%	NEOGEN (RM)
Benzene	US\$/ton	India	1,045	-1%	-9%	-13%	-9%	ARTO (RM)
BOPP film	Rs/kg	India	127	0%	1%	-2%	-28%	SRF (FG)
Caprolactam	US\$/ton	Taiwan, S Korea	1,660	0%	-1%	-3%	2%	CENK, SRF (RM), GSFC (FG)
Chloroform	US\$/kg	India	0.32	0%	13%	-10%	-36%	NFIL (RM)
Ethyl acetate	US\$/ton	China	882	-2%	-4%	-5%	-8%	GNFC, JUBILINGR, LXCHEM (FG)
Ethylene dichloride	US\$/kg	India	0.35	0%	-10%	13%	-57%	CHEMPLAS, FINOLEX, RIL (RM)
Fluorospar	US\$/ton	China	446	1%	-1%	-13%	4%	NFIL (RM)
Isopropyl alcohol	US\$/ton	China	1,050	5%	4%	5%	20%	DN, DFCPL (FG)
Phenol	US\$/ton	China	1,101	-3%	3%	-7%	-11%	VO, CLEAN (RM), DN (FG)
PVC	Rs/kg	India	80	0%	-2%	-6%	-16%	CHEMPLAS, DCM, DCW, FINOLEX, RIL (FG)
Soda ash (China FOB)	US\$/ton	China	280	-4%	-5%	-2%	-21%	TTCH (FG)
Sodium nitrite	US\$/kg	India	0.62	0%	14%	-14%	-24%	DN (FG)
Toluene	US\$/ton	China	1,027	1%	5%	12%	-3%	ARTO (RM)
Vinyl acetate monomer	US\$/ton	China	1,042	0%	7%	26%	-7%	PIDI (RM)
Fertilizers								
Ammonia, local	US\$/ton	India	320	-9%	-9%	-44%	-51%	
Ammonia, int'l	US\$/ton	US	445	0%	-15%	-29%	-25%	DFPC, CRIN (RM)
Phosphoric acid, local	US\$/ton	India	968	0%	-2%	-2%	-8%	CRIN (RM)
Rock phosphate	Index	Index	153	0%	0%	-56%	-49%	CRIN (RM)
DAP	US\$/ton	Morocco	580	0%	1%	-1%	-15%	
DAP	US\$/ton	Global	595	2%	0%	11%	-3%	
Urea, local	US\$/ton	India	323	0%	0%	-20%	-44%	CHMB (FG)
Urea, int'l	US\$/ton	US	348	0%	2%	15%	8%	
Muriate of Potash	CNY/ton	China	2,650	-5%	-6%	-10%	-27%	
Agrochemicals								
Glyphosate	US\$/ton	China	3,566	-1%	-3%	-12%	-48%	BYRCS (FG)
Chemical spreads								· ·
Phenol	US\$/ton	China	513	12%	8%	5%	15%	DN (FG)
Energy prices								
Brent crude	US\$/bbl		84	-2%	0%	0%	1%	
Coal	US\$/ton	Indonesia	126	7%	-34%	-34%	-59%	
Natural Gas	US\$/mn BTU	US	2	6%	-24%	-32%	-30%	
Natural Gas	GBP/ mn BTU	UK	8	8%	-8%	-41%	-42%	

Notes

RM = Raw material, FG = Finished Good

Source: Bloomberg, Volza, Plastemart, Kotak Institutional Equities



# Exhibit 41: Valuation comparables

		MCap			CMP	Upside		P/E (X)		EV/E	BITDA	(X)		RoE (%)		CAGR	2024-26E	E (%)	Share	price pe	rforman	ce (%)
		(US\$ mn)	Rating	FV (Rs)	(Rs)	(%)	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E	Revenue	EBITDA	EPS	1W	1M	3M	1Y
Basics																						
Chemplast Sanmar	CHEMPLAS IN	899	NR	NA	469	NA	(64.0)	19.2	13.7	99.8	10.1	8.2	3.1	47.8	60.6	16.4	248.6	NM	1.1	(4.2)	0.6	21.9
DCM Shriram		1,784	NR	NA	982	NA													0.2	(6.3)	1.6	19.5
Deepak Fertilisers	DFPC IN	772	NR	NA	516	NA	17.2	10.1	8.6	8.3	6.0	5.5	7.2	11.3	11.9	10.7	23.4	41.1	(1.5)	(17.5)	(18.7)	(17.5)
GNFC		1,116	NR	NA	654	NA													(4.4)	(14.8)	(6.9)	21.7
GACL		709	NR	NA	812	NA													(2.7)	0.9	11.3	29.0
GHCL	GHCL IN	586	NR	NA	511	NA	6.7	6.2	5.8	4.5	4.0	3.7	16.5	15.8	15.3	5.4	9.6	7.6	0.0	(12.2)	(6.9)	2.4
Tata Chemicals	TTCH IN	2,900	SELL	780	949	(17.8)	20.9	29.3	26.6	7.8	8.8	8.1	5.7	4.0	4.3	3.3	(4.1)	(11.3)	(3.7)	(8.2)	(2.7)	(3.2)
Non-Basics/Specialties/Diversified																						
Aarti	ARTO IN	2,835	SELL	480	652	(26.3)	57.6	43.4	32.4	26.9	20.9	16.9	8.1	9.9	12.1	23.8	34.7	33.2	(5.0)	(1.5)	17.1	22.6
Aether Industries	AETHER IN	1,404	NR	NA	877	NA	95.8	59.5	42.6	70.1	39.8	27.2	7.2	8.8	11.1	47.4	60.4	50.0	2.0	(0.7)	12.6	0.4
Alkyl Amines	AACL IN	1,325	NR	NA	2,150	NA	72.0	42.0	31.5	44.0	28.0	21.2	14.3	17.9	20.4	24.8	44.2	51.3	(2.2)	(9.5)	(0.3)	(13.9)
Ami Organics	AMIORG IN	494	NR	NA	1,125	NA	61.7	41.7	30.0	35.0	26.8	20.7	10.5	14.7	17.0	20.0	29.9	43.3	4.3	(3.0)	1.4	24.3
Apcotex	APCO IN	288	NR	NA	462	NA													(2.7)	(4.1)	(12.8)	10.4
Archean chemicals	ACI IN	1,104	NR	NA	753	NA	25.3	16.4	13.4	16.8	11.1	9.2							0.5	18.4	28.2	19.1
Atul	ATLP IN	2,159	SELL	4,050	6,150	(34.2)	45.6	36.5	30.0	24.7	20.2	17.1	8.1	9.4	9.4	12.6	19.9	23.2	(4.1)	(5.7)	(8.1)	(13.7)
Balaji Amines	BLA IN	847	NR	NA	2,188	NA				22.0	15.2	11.9				20.3	36.0		(3.9)	(10.7)	8.0	(0.9)
BASF India	BASF IN	1,722	NR	NA	3,305	NA							18.4	17.6	17.5				(0.3)	8.1	11.9	42.7
Camlin Fine Sciences	CFIN IN	233	NR	NA	119	NA	142.3	18.9	12.3	17.3	9.2	7.2	0.5	10.7	14.5	20.0	55.5	240.1	(5.7)	(9.4)	(13.4)	(15.8)
Clean Science	CLEAN IN	1,819	ADD	1,540	1,423	8.2	63.3	47.4	27.7	45.5	34.0	20.4	21.5	23.8	32.2	53.8	67.6	51.1	(2.5)	(5.2)	3.8	NA
Deepak Nitrite	DN IN	3,612	REDUCE	2,190	2,204	(0.6)	39.0	33.7	27.1	26.7	24.7	21.2	17.3	17.2	18.2	5.1	16.2	20.1	(6.3)	(4.9)	(0.1)	21.9
Gujarat Fluorochem	FLUOROCH IN	4,805	NR	NA	3,625	NA	81.1	42.0	31.1	42.0	26.5	20.0	8.9	14.3	16.7	25.7	44.8	61.3	4.7	(0.2)	29.0	17.0
Himadri specialty chemical	HSCH IN	1,886	NR	NA	360	NA													(2.4)	(5.6)	29.2	323.4
Jubilant Ingrevia	JUBLINGR IN	918	NR	NA	486	NA	32.3	21.6	18.9	17.1	12.8	10.7	8.3	10.7	12.0	15.4	26.4	30.7	1.3	9.0	10.9	7.1
Laxmi Organics	LXCHEM IN	842	NR	NA	257	NA	67.0	41.6	31.0	28.9	20.2	16.0	6.1	9.9	12.2	14.7	34.2	47.0	(5.4)	(5.5)	(4.7)	(1.3)
Meghmani organics	MEGH IN	1,404	NR	NA	499	NA																
NFIL	NFIL IN	1,804	REDUCE	3,120	3,044	2.5	68.8	42.0	29.0	38.8	24.3	18.0	9.5	14.0	17.7	28.5	40.6	54.0	(5.5)	(11.7)	(18.5)	(26.8)
Neogen	NEOGEN IN	421	NR	NA	1,382	NA	79.3	44.8	34.0	34.4	23.0	16.4	6.8	10.3	12.9	25.0	44.8	52.6	2.0	(7.4)	(10.3)	7.0
Nocil	NOCIL IN	521	NR	NA	261	NA	34.3	26.9	20.7	19.3	16.0	12.9	8.0	9.6	11.6	14.3	22.4	28.5	(6.0)	(3.4)	12.9	18.1
Sudarshan	SCHI IN	491	NR	NA	589	NA	44.4	27.0	19.9	16.2	12.7	10.6	9.0	13.2	16.2	11.8	23.3	49.3	(1.3)	12.4	29.5	59.6
Supreme Petro	SPPT IN	1,692	NR	NA	732	NA																
Tanfac Industries Itd	TANF IN	228	NR	NA	1,875	NA																
Vinati	VO IN	2,010	SELL	1,100	1,610	(31.7)	55.0	42.0	33.4	36.7	28.7	22.5	12.5	14.2	15.7	24.5	27.3	28.2	(4.7)	(6.8)	(5.5)	(14.3)
Vishnu chemicals	VCL IN	237	NR	NA	303	NA																
SRF	SRF IN	8,475	BUY	2,660	2,391	11.3	52.9	36.8	32.5	27.5	20.6	15.0	12.3	15.8	20.0	17.9	32.6	45.8	(1.5)	2.1	0.3	9.5
Tatva Chintan	TATVA IN	343	NR	NA	1,223	NA	75.0	30.2	21.1	34.6	18.5	13.5	6.0	12.0	15.1	45.5	60.1	88.4	(1.7)	(7.4)	(17.8)	(35.3)
Yasho Industries	YASHO IN	291	NR	NA	2,118	NA																
HPC																						
Fine Organics	FINEORG IN	1,599	NR	NA	4,273	NA	33.7	32.4	29.0	24.3	23.2	20.7	22.9	19.9	19.2	10.0	8.3	7.7	0.1	(8.4)	2.3	(6.5)
Galaxy surfactants	GALSURF IN	1,037	NR	NA	2,450	NA	27.6	23.4	20.5	17.4	15.2	13.4	15.6	16.7	16.4	9.7	13.7	15.8	(2.4)	(11.3)	(14.2)	3.4
Privi	PRIVISCL IN	559	NR	NA	1,221	NA													(4.7)	(2.7)	(6.3)	27.8
Oriental Aromatics	OAL IN	144	NR	NA	357	NA													(1.2)	(5.1)	1.4	3.3
Rossari Bio	ROSSARI IN	481	NR	NA	746	NA	30.1	22.9	19.8	16.9	14.1	11.9	13.8	15.9	16.1	14.3	19.3	23.3	(3.4)	(6.3)	3.3	20.0
Agrochemicals																						
Anupam Rasayan	ANURAS IN	1,260	NR	NA	950	NA	70.0	45.2	32.5	29.5	22.9	17.4	5.7	7.8	10.0	28.2	30.5	46.8	3.6	0.6	(3.2)	48.0
Astec LifeScience	ASTEL IN	211	NR	NA	885	NA	(56.8)	50.2	26.6	259.3	23.5	17.3	(8.5)	8.1	13.1	30.0	287.7	NM	(3.0)	(8.6)	(25.7)	(34.5)
Bayer CropSc	BYRCS IN	3,104	SELL	5,190	5,742	(9.6)	31.7	28.1	25.4	21.9	19.4	17.6	29.3	31.6	33.2	10.1			(4.8)	(4.4)	6.7	34.0
Bharat Rasayan	BRSN IN Equity	448	NR	NA	9,106	NA													2.2	(0.2)	(0.3)	2.2
Best Agro	BESTAGRO IN	170	NR	NA	598	NA													(3.2)	(25.0)	(33.8)	(47.7)
Chambal Fertlizers	CHMB IN	1,736	NR	NA	348	NA	10.4	8.9	7.6	5.5	4.9	4.2	17.4	16.9	18.0	6.6	14.5	16.9	(6.6)	(5.5)	8.9	26.2
Coromandel Intl	CRIN IN	3,747	NR	NA	1,054	NA	18.4	15.5	14.2	11.3	9.7	8.9	19.8	19.8	18.6	8.5	12.6	13.8	(4.1)	0.3	(9.5)	17.2
Godrej Agrovet	GOAGRO IN	1,189	ADD	600	516	16.3	29.4	22.2	22.2	17.4	13.4	10.3	11.9	14.5	16.8	11.9	17.8	22.1	(0.9)	(8.3)	1.6	16.4
PI Industries	PLIN	6,649	ADD	3,830	3,650	4.9	33.8	32.1	28.6	26.6	23.2	20.7	20.7	18.3	17.6	12.5	11.2	8.6	(1.6)	7.4	(3.9)	16.9
Rallis	RALI IN	564	SELL	220	240	(8.4)	29.0	22.9	19.6	14.9	12.5	10.9	9.1	10.8	11.8	11.9	13.4	21.8	0.4	(8.5)	3.9	23.1
Sharda Cropchem	SHCR IN	390	NR	NA	354	NA	64.1	13.7	9.9	8.4	4.9	3.7	3.7	9.3	12.5	14.8	51.3	154.9	(2.8)	(10.6)	(11.8)	(24.4)
Sumitomo Chemicals	SUMICHEM IN	2,257	NR	NA	375	NA	53.0	37.9	30.9	39.7	28.2	23.2	14.5	17.8	18.8	18.2	30.7	31.0	(0.5)	(8.8)	(6.9)	(15.3)
UPL	UPLL IN	4,308	SELL	390	479	(18.5)	(26.2)	57.6	17.4	13.2	7.9	6.1	(5.3)	2.5	7.8	7.3	12.0	NM	(4.2)	(12.3)	(17.3)	(32.1)
						. ,	. ,						,						. ,	. ,		

Source: Bloomberg, Kotak Institutional Equities estimates

"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, Eesha Mohanty."

#### 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.

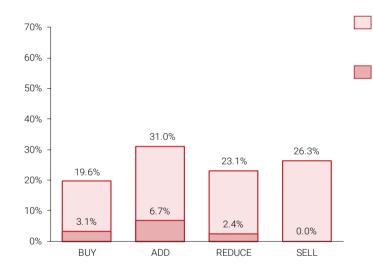
SELL. We expect this stock to deliver <-5% returns over the next 12 months.

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



Percentage of companies covered by Kotak Institutional Equities, within the specified category.

Percentage of companies within each category for which Kotak Institutional Equities and or its affiliates has provided investment banking services within the previous 12 months.

\* The above categories are defined as follows: 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 less than -5% returns over the next 12 months. Our target prices are also on a 12-month horizon basis. These ratings are used illustratively to comply with applicable regulations. As of 31/12/2023 Kotak Institutional Equities Investment Research had investment ratings on 255 equity securities.

Source: Kotak Institutional Equities

As of December 31, 2023

#### Coverage view

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#### Other ratings/identifiers

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