

# **Specialty Chemicals**

## Kindly refer our detailed report on Specialty Chemicals



### Indian Specialty Chemicals to benefit from China+1 strategy

- The Indian Specialty Chemicals sector has not benefited from the China+1 strategy, with none of our coverage companies (DN, NOCIL, VO, GALSURF, NFIL, FINEORG, AACL, and ATLP) showing any significant rise in exports (as a percentage of revenue) in the past decade (Exhibit 1).
- On a consolidated basis, while exports from India have risen by ~50% over the past decade, other countries like Vietnam have shown a significant rise in exports (Exhibit 2). Indian Specialty Companies will stand to benefit only when India takes concrete steps towards capitalizing this new opportunity.
- The consolidation in Chemical companies still continues in China and is expected to result in a growing call for alternate suppliers of key chemicals.

### China+1: The climax is far away

- Although several initiatives had been taken in China before, the most critical ones began in CY16, culminating in 80,000 companies being charged with violation of emission standards in CY17, almost double of that in CY16.
  <u>Estimates</u> suggest that almost 40% of China's total manufacturing capacity was temporarily shut in CY17, with closures of 2-4 weeks.
- This culminated in the following: a) all toxic MSMEs to relocate to designated chemical industry parks away from urban areas by CY20-end, b) all larger toxic plants to relocate by CY25-end, and c) plants must re-engineer to produce non-toxic products or close permanently if re-engineering/relocation is not possible.
- Several other provinces also have stated goals to <u>close/shift Chemical companies and industrial parks</u>. It is important to note that it is relatively easy for larger companies to relocate/re-engineer; cost becomes prohibitive for MSMEs, which also have restricted availability of capital. A slew of tax measures have also been levied on various polluting chemicals (*Exhibit 3*).

# India is trying to exploit the opportunity: bright future for Specialty Chemicals

- As highlighted in our recent sector initiation <u>Genie is out</u>, India's exports have climbed a meager ~50% during the past decade, while a few countries like Vietnam been able to quadruple their exports in the same period through aggressive policies.
- Although India started late, under Atmanirbhar Bharat, 13 sectors have been approved for production linked incentives (PLI) of INR1.97t, which is expected to result in an incremental USD500b of production over the next five years.
- A slew of petrochemical expansions are also underway by major players like Indian Oil, Hindustan Petroleum, GAIL, Nayara Energy, Haldia Petrochemicals, and HMEL, which would drive demand for Chemicals and Specialty Chemicals in the country.

#### Valuation and recommendations

- Since the past few quarters, the euphoria due to: a) consolidation of polluting Chemical companies in China, b) COVID-related supply chain disruptions, and c) supportive margins have led to multiples expanding for the Indian Specialty Chemical companies. Annexure I suggest that the story of consolidation is not yet over in China, which may emerge as a strong growth driver for Indian Specialty Chemical companies.
- Indian companies are progressively increasing the contribution of Specialty Chemicals in their portfolio. For example, DN is expected to come up with INR7b of investments in downstream products of phenol. Additionally, Deepak Clean Tech is expected to be more towards Specialty Chemicals. VO is expected to commence production of anti-oxidants and downstream of butyl alcohol. The NOCIL's management said that some customers are conducting advanced precommercial studies on "certain Specialty Chemicals and high Value Chemicals," which may raise the contribution of Specialty Chemicals in their portfolio.
- Companies with higher contribution of Specialty Chemicals in their mix command higher multiples. We recommend a buy on VO and GALSURF, which are trading at 42x and 29x FY23 EPS. We value VO and GALSURF at 43x and 33x Sep'23E EPS and reiterate our Buy rating on the stocks with a TP of INR2,220 and INR3,620, respectively.
- We value DN and NOCIL at 28x and 22x Sep'23E EPS and recommend a Buy with a TP of INR2,350 and INR340, respectively. DN and NOCIL are currently trading at 27x and 17x FY23E EPS.

Peer comparison in our coverage universe

Company TP (INR)	TD (INID) (0/) Heade	aida Dasa		EPS (INR)		P/E (x)		EV/EBITDA (x)		ROE (%)					
	(%) Upside	Reco	FY21	FY22E	FY23E	FY21	FY22E	FY23E	FY21	FY22E	FY23E	FY21	FY22E	FY23E	
Alkyl Amines	3,665	-11	Neutral	57.9	59.0	73.7	70.8	69.5	55.6	49.6	49.8	40.2	44.4	33.5	33.1
Atul	10,000	9	Neutral	218.0	258.8	290.0	41.9	35.3	31.5	29.9	24.6	21.9	18.5	18.4	17.7
Deepak Nitrite	2,350	12	Buy	56.9	69.4	78.2	36.9	30.3	26.9	23.7	20.1	17.8	39.6	34.4	29.6
Fine Organic	3,134	11	Neutral	37.5	50.5	78.3	75.5	56.1	36.1	44.2	34.9	23.5	16.8	19.5	25.8
Galaxy Surfact.	3,620	21	Buy	85.2	91.0	103.9	35.0	32.8	28.7	24.0	21.6	18.6	25.5	22.7	21.9
Navin Fluo. Intl.	4,040	8	Neutral	51.2	57.5	95.8	72.9	64.9	39.0	57.6	50.3	29.2	16.5	16.0	22.6
NOCIL	340	40	Buy	5.2	12.1	14.2	46.5	19.9	17.0	32.2	13.5	11.4	7.1	15.1	16.1
Vinati Organics	2,220	20	Buy	26.2	33.6	44.7	70.8	55.1	41.5	55.6	43.5	32.4	19.1	20.6	22.9

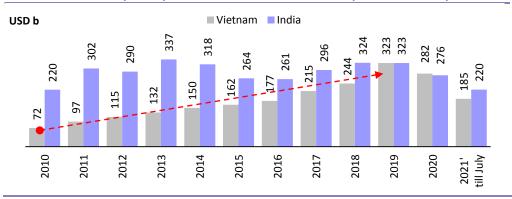
Source: Company, MOFSL

Exhibit 1: Exports, as a percentage of total revenue, for our coverage remains broadly similar in the past decade

Exports (% of total revenue)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Alkyl Amines	23	22	22	19	20	22	20	21	19	18
Atul	46	50	48	49	50	53	50	50	48	46
Deepak Nitrite	42	41	39	39	40	39	42	32	28	29
Fine Organics	NA	NA	59	59	54	62	57	55	55	55
Galaxy Surfactants	NA	61	63	61	65	64	64	64	65	65
Navin Fluorine	53	39	28	34	43	44	45	46	45	53
NOCIL	38	36	35	30	25	27	26	30	35	35
Vinati	76	76	67	68	67	69	71	73	74	76

Source: Companies, MOFSL

Exhibit 2: Vietnam exports up 4x over the last decade; now on par with India exports



Source: Industry, MOFSL

Exhibit 3: Tax on polluting chemicals in China

Pollution medium	Major pollutants	Tax range
Air	SO2, NO2, CO, HCl, Cl, F, etc. (a total of 44 items)	CNY1.2-12/pollution eq.
Water	<ul> <li>Suspended substances, mercury, cadmium, chromium, arsenic, lead, nickel (a total of 61 items)</li> </ul>	CNY1.4-14/pollution eq.
Solid waste	Coal stone, mine tailings, slag, ash, hazardous waste, liquid waste, etc.	■ CNY5-1,000/mt
Noise	Over one decibel higher than the standard	■ CNY350-11,200/month

Source: Beroe, MOFSL

### **Annexure 1**

Exhibit 4: Annexure 1: a) Heilongjiang province will close 14 chemical plants and relocate another five

Company Name	Major Products	Action Requested	Deadline
Haerbin Changsheng Construction Paint	Paint	Shut	2018.12
Haerbin Swan Aluminium & Silver	Al, silve	Shut	2018.12
Chinacoal Heilongjiang Haerbin CoalChemical	Methanol, gas	Shut	2025.12
Mudanjiang Shunda Chemical	Calcium carbide, Silicon	Shut	2018.12
Mudanjiang Hongli Chemical	Oxalate, formic acid	Shut	2018.12
Mudanjiang Aihe Fuli Chemical	Methanol, urea	Shut	2018.12
Mudanjiang Yifeng City Gas	Gas		2018.12
Daging Oilfield Kunlun Coating	Coating	Relocate	2020.12
Daging Wanshunxing Ethyne	Ethyne	Shut	2019.12
Zhaoyuan Dafeng Furfural	Furfural	Shut	2018.12
Jixi Heyang Gas	Gas	Shut	2018.12
Qitaihe Mining Coal Duojing Ethyne	Ethyne	Shut	2018.12
Qitaihe Wanchang Coking	Coke, coal tar	Shut	2019.12
Qitaihe Zhaofa Coking	Coke, coal tar	Shut	2020.12
Anda Hongda Ethyne	Ethyne		2018.12
Huachuan Huifeng Wine	Alcohol	Relocate	2020.12
Kiamusze Heilang Pesticide	Pesticide	Relocate	2020.12
Kiamusze Longxin Titanium	Titanium	Relocate	2020.12
Kiamusze Dingxin Dissolved Ethyne	Ethyne	Relocate	2020.12

Source: Beroe, MOFSL

Exhibit 5: Annexure 1: b) Sichuan province to close nine chemical plants and relocate 37 plants

Exhibit 3: Annexure 1: b) Sichaan provin	ec to close fillic cheffical plants and relocate 37 p	iaires	
Company Name	Major Products	Action Requested	Deadline
Chengdu Kaiyi Paint	Paint	Relocating	2018.12
Chengu Xinju Chemical	Ethyne	Relocating	2019.12
Sichuan Huachuan Industries	Firecrackers	Relocating	2019.12
Chengdu Jinhuayan Gas	Liquefied petroleum gas	Relocating	2019.12
Sichuan Guoguang Agrochemical	Pesticides	Relocating	2018.12
Sehuan Fine Chemical Research & Design Institute	Surfactant, n- ethylmorpholine,ethephon, cyanuric acid	Relocating	2020.12
Zigong Dacheng Chemical Manufacture	Barium chloride, barium hydroxide	Relocating	2020.12
Zigong Tianyi Chemical	Paint	Relocating	2020.12
Haohua Honghe Chemical	Ammonia, caustic soda, PCE, calcium hydrophosphate	Relocating	2025.12
Panzhihua Rongxin Paint	Paint	Relocating	2020.12
Luzhou Fubang Chemical	Hexanediol, hexaarenes acetylenic diols	Relocating	2020.12
Naxi Tianyi Fine Chemicals	Methylsuccinyl alcohal	Relocating	2020.12
Luzhou Ruixin Bio-engineering	Ganglioside	Relocating	2020.12
Luzhou Dazhou Chemical	Adamantane and derivatives	Relocating	2020.12
Sichuan Jinlu Resin	Caustic soda, PVC	Relocating	2025.12
Shifang Zhenjiang Chemical	Caustic potash	Relocating	2020.12
Shifang Changfeng Chemical	Fertilizer	Relocating	2020.12
Shifang Postassium Nitrate Factory	Potassium nitrate, ammonium chloride	Relocating	2020.12
Sichuan Guangyu Chemical	Soda ash, ammonia, ammonium Chloride	Relocating	2025.12
Sichuan Yungong Chemical	Sulfoxide chloride, OB	Relocating	2020.12
Dayin Petrochemical	Chemicals	Relocating	2020.12
Sichuan Xingmao Petrochemical	Chemicals	Relocating	2020.12
Mabian Jianengjia Phosphorus Chemical	Yellow phosphorus	Relocating	2023.12
Mbian Wugiong Mining	Yellow phosphorus	Relocating	2023.12
Sichuan Yibin Weili Chemical	Detonator	Relocating	2020.12
Yibin Goldworld Chemical	co2	Relocating	2020.03
Yibin Hengde Chemical	Ethyne	Relocating	2018.01
Sichuan Xianyida Agrochemical	Pesticides	Relocating	2020.02
Dazhou Xinglong Chemical	Fertilizer	Relocating	2020.12
Sichuan Kexin Chemical Factory	Pesticides	Relocating	2020.12
Sichuan Chuandong Pesticide Chemical	Pesticides	Relocating	2020.12
Dazhu Shili Gas	02, argon, CO2, nitrogen, ethyne	Relocating	2019.12
Dazhou Zili Gas	Compressed gas	Relocating	2020.06
Sichuan Zanyu Technology	Dodecylbenzenesulfonic acid	Relocating	2020.01
Xichang Huiyuan Gas	Ethyne, O2, CO2	Relocating	2018.02
Sichuan Xinshengyuan Chemical	Caustic soda	Relocating	2018.02
Zigong Jinxin Chemical Industries	Barium chloride, barium hydroxide	Close	2020.12
Zigong Nanfeng Chemical Manufacturing	Barium chloride, calcium chloride	Close	2020.12
Zigong Kexin Chemical	Aids Paint	Close	
Sichuan Minjiang Chemical	Synthetic ammonia	Close	2018.12
Sichuan Feilong Chemical	Synthetic ammonia, CO2	Close	2018.07
Sichuan Hongtai Bio-chemical	Urea, Fertilizer	Close	2018.07
Sichuan Chuanlong Chemical	synthetic ammonia, ammonium bicarbonate	Close	2020.12
Yan'an Yongsheng Ethyne	Ethyne	Close	2019.12
Mianyang Sanjiang Chemical	Formaldehyde	Close	2020.12
Shuangliu Jiujiang Naili Resin	Shoe material	Reengineering	2019.12
Zigong Honghe Pharmacy	Sodium chloride, sodium bicarbonate, potassium iodate	Reengineering	2018.12
	iodate		

Source: Beroe, MOFSL

Exhibit 6: Annexure 1: c) Hubei to relocate/reengineer 144 chemical plants before 2025 and shut 11 plants

Company Name	Major Products	Location	Action Requested
Wuhan Renhe Coating	Coating	Wuhan	Relocate
Wuhan Xintai Ethyne Gas	Ethyne	Wuhan	Shut/Relocate
Wuhan Steel Beihu Chemical	Benzene, solvents, naphthalene	Wuhan	Change Product
Wuhan Yichang Chemical Coating	Coating	Wuhan	Shut/Relocate
Wuhan Yixing Chemical	Painting, Coating	Wuhan	Shut/Relocate
Wuhan Shiquanxing Decoration Coating	Coating	Wuhan	Shut/Relocate
Wuhan Haiyun Chemical	Coating, alkyd/ acrylic resin	Wuhan	Shut/Relocate
Wuhan Guoqi Dongxihu Branch	Painting	Wuhan	Shut/Relocate
Wuhan Sanke Anticorrossion Technology	Painting	Wuhan	Shut/Relocate
Wuhan Xingguangcai Coating	Coating	Wuhan	Shut/Relocate
Wuhan Caibao Surface New Material	Bonderite, antirust agent	Wuhan	Shut/Relocate
Wuhan Haidetianwn New Material	Coating	Wuhan	Shut/Relocate
Wuhan Feiluhaosheng Coating	Coating	Wuhan	Shut/Relocate
Wuhan Hegui Coating	Coating	Wuhan	Shut/Relocate
Wuhan Shanhu Coating	Coating	Wuhan	Shut/Relocate
Wuhan Jaingxia Paint	Painting	Wuhan	Shut/Relocate
Wuhan Wuchang Electric Chemical Ethyne Factory	Ethyne	Wuhan	Shut/Relocate
Wuhan Gelin Coating	Coating	Wuhan	Shut/Relocate
Wuhan Rongda Chemical	Coating, Plastic/ rubber products	Wuhan	Shut/Relocate
Wuhan Huangbei Yousheng Gas Production	Oxygen, Co2, Ethyne	Wuhan	Relocate
Wuhan Tiantai Chemical	Stannous/lead/copper/indium/fluoborate	Wuhan	Relocate
Wuhan Wenjing Electric New Material	Insulator	Wuhan	Relocate
Wuhan wulong Pesticide	Pesticide	Wuhan	Relocate
Wuhan Jiaji Coating Chemical	Coating	Wuhan	Change Product
Wuhan Jiamei Paint	Painting	Wuhan	Change Product
Wuhan Hannan Tongxin Chemical	Chloral, guanidine hydrochloride/phosphate,carbonet	Wuhan	Shut
Yangtze Optical Fibre and cable joint stock limited	Datasheet	Wuhan	Change Product
Wuhan Lanjiang Gas	Ethyne	Wuhan	Shut
Ruiyuan Gas	Oxygen, nitrogen, argon, ammonia, CO2	Huangshi	Relocate
Huangshi Xintai Alkali	Sodium sulfide	Huangshi	Relocate
Yangxin Xingfa Industry Gas	Ethyne, oxygen, argon, propane, nitrogen	Huangshi	Relocate
YangxinChengguang Chemical	P2S5	Huangshi	Relocate
Yangxing Zhongzhen Chemical	P2S5	Huangshi	Relocate
Jifeng Industry Gas	Ethyne	Huangshi	Relocate
Yangxin Ruixin Chemical	NH,4HCOs, ammonia, methanol	Huangshi	Change product
Huangshi Taihua Industry Technology Development	Benzene, toluene, xylene	Huangshi	Change product
Hubei Danjiangkou Hengkang Oxygen	Oxygen, nitrogen	Shiyan	Relocate
Hubei Dongsheng Danjiang Chemical	NH4HCO3, ammonia, methanol, urea	Shiyan	Shut
Danjiangkou Shenlong Chemical	Feo, AICI, yellow phosphorus	Shiyan	Shut
Shiyan Jinke Chemical	Battery acid	Shiyan	Change product
Hubei Huitian New Material	Adhesive	Xiangyang	Relocate
Xiangyang Xinfu Coating Chemical	Coating	Xiangyang	Relocate
Xiangyang Dongda Chemical	Painting	Xiangyang	Relocate
Hongtai Chemical	Ethyne	Xiangyang	Relocate
Yicheng Xinjian Industry	Ethyne, oxygen	Xiangyang	Relocate
		01~0	

Company Name	Major Products	Location	<b>Action Requested</b>
Zaoyang Zhongcheng Chemical	m-dichlorobenzene, 3,4- dichlorodiphenyl, Phenylene ether ketone benzaldehyde	Xiangyang	Relocate
Zaoyang Gold Deer Chemical	Hydrocyanic acid	Xiangyang	Relocate
Xiangyang Mingman Gas	Ethyne	Xiangyang	Relocate
Hubel New Universal Chemical	Solvents, surfactant	Xiangyang	Relocate
Zaoyang Jiaxin Chemical	N/A	Xiangyang	Relocate
Xiangyang Kexin Technology	Paint	Xiangyang	Relocate
Xiangyang Melting Ethyne	Ethyne	Xiangyang	Relocate
Hubei Weidong Holdings	Plastics	Xiangyang	Relocate
Hubei Handan Mechatronics	Anti-riot robot, direct current generator	Xiangyang	Relocate
Yidou Duobang Chemical	Pigment	Yichang	Relocate
Yidou Youyuan Industry	Diphenyl ketone, benzoyl chloride,benzoyl chloride	Yichang	Relocate
Yidou Jinxin Vanadium	Ammonium metavanadate	Yichang	Relocate
Zhijiang Huawei Zncl2	Zinc chloride	Yichang	Relocate
Hubei Xiangqin Fertilizer	Fertilizer	Yichang	Relocate
Hubei Shanshui Chemical	PVC	Yichang	Relocate
Hubei Kaiyuan Chemical Technology	Manganese chloride, manganese dioxide, hydroquinone	Yichang	Relocate
Yichang Huaqun Technology	Hydrochloric acid	Yichang	Shut
Zhijiang Liyuan Chemical	Chloranil	Yichang	Relocate
Sinopec Hubei Fertilizer Branch	Fertilizer	Yichang	Relocate
Yichang Dexin Gas	O2, Nitrogen, ethyne, H2, argon	Yichang	Relocate
Hubei Dangyang Anchen Sengong Technology	Rosin, turpentine	Yichang	Change product
Dangyang Sencheng Forest Chemical	Resin, rosin, turpentine	Yichang	Change product
Hubei Changyang Tianchang Chemical	Potassium chlorate/hyper chlorate, sodium perchlorate	Yichang	Relocate
Hubei Liushugou Chemical Technology	Phosphorous acid	Yichang	Relocate
Hubei Zhongfu Chemical Industry Group	Fertilizer	Yichang	Relocate
Yichang Saide Chemical	Coating, paint	Yichang	Relocate
Yich Fuxin Paint Chemical	Paint	Yichang	Relocate
Yichang Huangshide Adhesive	Adhesive	Yichang	Change product
Nengte Technology	Montelukast intermediate methylphenol	Jingzhou	Change product
Jingzhou Shuangxiong Chemical Technology	H202, peracetic acid	Jingzhou	Change product
Jingzhou Hualong Gas	Oxygen, nitrogen	Jingzhou	Change product
Hubei Tianhenong Biochemical Engineering	Pesticide	Jingzhou	Change product
Jingzhou Longhua Petrochemical	Surfactant	Jingzhou	Change product
Hubei Tianhenong Biochemical Engineering		Jingzhou	Change product
Honghu Zhiyuan Industry Gas	Oxygen, argon, ethyne	Jingzhou	Change product
Hubei Sanonda (old factory)	Pesticide	Jingzhou	Relocate
Jingzhou Huagian Chemical	Oxygen, nitrogen, CO2, argon, propane, ethyne	Jingzhou	Relocate
Songzi Jinsong Chemical	Flame retardant	Jingzhou	Relocate
Hubei Qixing Chemical	HSO, CaP2H4O8	Jingzhou	Relocate
Songzi Lisong Forest Chemical	Chip	Jingzhou	Relocate
Hubei Songchun Chemical	Coating	Jingzhou	Relocate
Gong'an Huanxi Chemical Gas	CO2, argon, nitrogen, ethyne, H2,oxygen, LPG, Methane	Jingzhou	Relocate
Hubei Jingtiandi Chemical Technology	Coating, paint	Jingzhou	Relocate
Jingzhou Xinjing Chemical	C5H8O2, propylene ether, epoxy resin	Jingzhou	Relocate
Hubei Shunfeng Biochemical Technology	Plasticizer, acetic acid	Jingzhou	Relocate
Hubei Changrun New Material Technology	Coating, paint	Jingzhou	Relocate
		_	

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Company Name	Major Products	Location	Action Requested
Jingzhou Gemei Gas	Ethyne, oxygen, nitrogen	Jingzhou	Relocate
Jingzhou Jinbei Chemical	Ethyne	Jingzhou	Relocate
Jingshan Dongxing Gas	Ethyne, oxygen	Jingzhou	Relocate
Hubei Xiangtai Fibrin	Hydroxyethyl! cellulose	Jingmen	Shut
Zhongxiang No 2 Chemical Pesticide	Propane bromide	Jingmen	Relocate
Hubei Zhongxiang Xiangyi Chemical	Bleaching powder	Jingmen	Relocate
Hubei Jiangshan Chemical	Phosphate fertilizer, SO2	Jingmen	Relocate
Hubei Wuda Organosilicon New Material Co Gedian Branch	Water-proofing additive	Erzhou	Relocate
Hubei Haili Environment Protection Technology	Water treatment additives	Erzhou	Change product
Hubei Changhai New Energy Technology	Isulator	Erzhou	Change product
Anlu Huaxin Chemical	Phosphorus trichlorid, sulfoxide Chloride	Xiaogan	Change product
Hubei Longma Chemistry	Water-proofing additive	Xiaogan	Change product
Anlu Xinjing Chemical	Vinyl ether	Xiaogan	Change product
Dawu Jinchu Chemical	Paint	Xiaogan	Shut
Xiaochang Jinji Chemical	Stannic methanesulfonate, stannous fluoborate, copper fluoborate, lead methanesulfonate	Xiaogan	Relocate
Yingcheng Jinwei Chemical	Hydrochloric acid, caustic soda	Xiaogan	Relocate
Hubei Limeida Silicon Fluoride Technology	Ethyne	Suizhou	Change product/relocate
Hubei Henuo Biology Engineering	Nicotine sulfate	Enshizhou	Relocate
Enshi Jiali Gas	Ethyne, nitrogen, argon, CO2	Enshizhou	Relocate
Hubei Green House Material Technology	Peruol, benzyl alcohol, curing agent, benzoate	Enshizhou	Relocate
Xiantao Xinda Chemical	Inhibitor, germicide, flocculant, foamer	Enshizhou	Relocate
Hubei Xianlong Chemical	Dying intermediate	Enshizhou	Relocate
Xiantao Maoyuan Chemical	Silica sol, sodium silicate, water purification agent, fine chemicals	Enshizhou	Relocate
Xiantao Yongfa Gas	Oxygen	Enshizhou	Relocate
Xiantao Weixun Chemical	Fine chemicals	Enshizhou	Relocate
Xiantao Jintao Chemical	Viscose	Enshizhou	Relocate
Hubei Xianshen Technology	Drug intermediates	Enshizhou	Relocate
Tianmen Sipulin Plant Protection	Pesticide	Tianmen	Relocate
Jianghan Oilfield Weiming Chemical Co	Coating, resin	Qianjiang	Change prodt
Qianjiang Guangxing Gas	Ethyne	Qianjiang	Change prodt
Shenlongjia Wuchan Mine Co Yangri Chemical Plant	Phosphate ore	Shennongjia	Shut
Shenlongjia Fengyuan Phosphor Chemical	Yellow phosphorus	Shennongjia	Shut

Source: Beroe, MOFSL

Explanation of Investment Rating				
Investment Rating	Expected return (over 12-month)			
BUY	>=15%			
SELL	<-10%			
NEUTRAL	< - 10 % to 15%			
UNDER REVIEW	Rating may undergo a change			
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation			

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