

## Tsaker Chemical Group Ltd. (1986 HK, BUY)

 CMBC Securities Company  
 Limited – Research Department

**One of the World's Leading Producers of Fine Chemicals.** Being a sizeable producer of a number of fine chemicals that function as dye, agricultural and pigment chemicals intermediates, Tsaker Chemical Group Limited (the Company) garners leading position for its key products in the global market. The Company adopts the strategy of expanding the capacity or/and upgrading technologies and operating efficiency for its existing products in order to continuously strengthen its market position in existing businesses. We expect the Company can sustain leading position in its traditional businesses, thereby generating solid revenue, profits, and operating cash flows.

**Favorable Macro Environment for the Market Leader.** As the Chinese economy transforms and upgrades, we think it will lead to increasingly stringent regulation on environmental protection. As enterprises that fail to meet the environmental protection standard shut down, it will lead to consolidation for the chemical industry and result higher market concentration among leading players. The positive impacts of the economic transformation and supply reform by the mainland government benefits market leaders, which was showcased by the Company's resilient GPM and ASPs for its core operation in the last 1-2 years. We believe the Company's continued quest to enhance environmental protection standards will aid itself maintaining its competitive edge against its peers and gaining market share, thereby resulting decent profit growth prospects.

**Earnings Fillips from Diversifying to Related Industries.** We think the Company's strategy of diversifying to related industries is beneficial to the Company in the long run, as it will bring additional income source and diversify its overall business risk. After the enrichment of profit source via its entrance to the agricultural chemical intermediates space by producing mononitrotoluene since 2015, we believe the Company's ongoing foray to the lithium battery materials and the environmental protection consultancy service space will provide additional earnings growth drivers in coming 1-2 years. All in all, we project a 30% CAGR in the Company's earnings during FY17-19.

**Valuation and Risks.** We see the price weakness of the counter in the past 1-2 months as a good bargain hunting opportunity. Based on a forward FY19 PER of 9x, which represents an undemanding PEG of 0.3x and at the lower end of its post-listing PER band of 3-22x, we initiate our coverage on the stock with a Buy with a target price of HK\$2.50. The main risk to our rating and the attainment of our target price is lower business demand than we expect, lower GPM than our forecast amid a price hike in raw material cost that may not be able to transfer price hike to its customers.

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### Earnings Summary

Year Ended Dec 31	2015	2016	2017	2018F	2019F		
Net profit (RMB mn)	97.5	120.9	136.1	226.1	265.0	Price (as of 25 Feb.)	HK\$1.60
Change (%)	-32	24	13	66	17	Target price	HK\$2.50
EPS (RMB cents)	11.1	12.1	13.2	21.6	25.4	Market cap.	HK\$1,663mn
Change (%)	n/a	8	10	64	17	Major shareholder:	Mr. Ge Yi (62.1%)
DPS (RMB cents)	3.1	3.7	3.9	6.5	7.6		
P/E (x)	12.5	11.5	10.5	6.4	5.5		
Dividend yield (%)	2.2	2.6	2.8	4.7	5.5		

Source: Company data, CMBC Securities Research

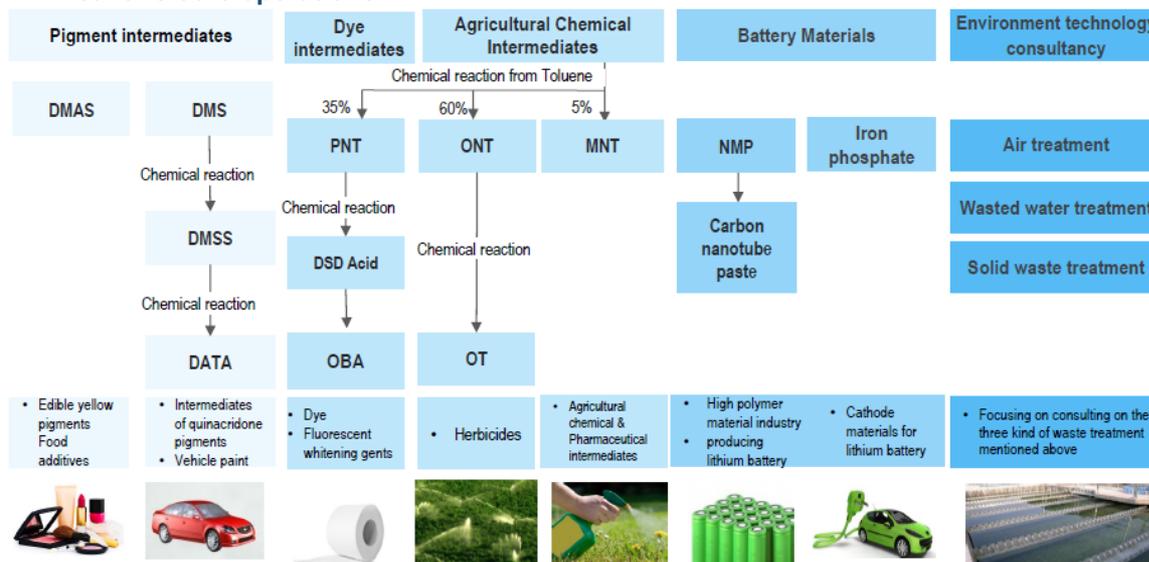
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### A Leading Fine Chemicals Company

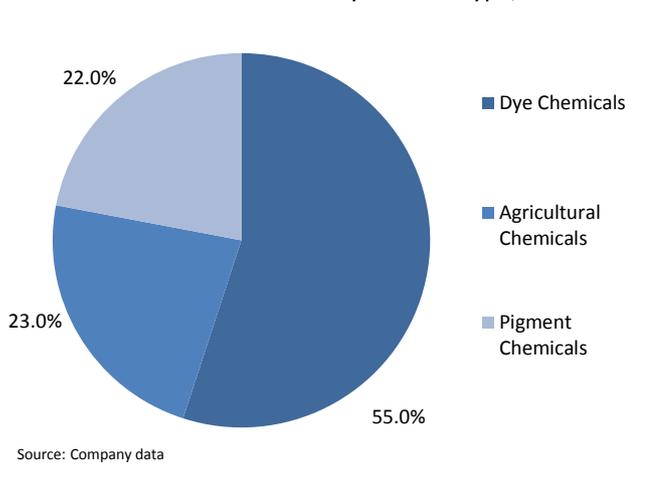
Tsaker Chemical Group Limited (the Company) is the world’s leading producer of a number of fine chemicals that functions as dye, agricultural and pigment chemicals intermediates. The Company’s main products are intermediaries in many consumer goods industries, such as paper, food additives, paint and cosmetics etc. The Company’s production facilities are mainly located at Dongguang, Hebei Province and Dongying, Shandong Province of the PRC. The Company entered into the field of lithium battery materials and environmental protection consulting in 2017. Revenue and gross mix from dye, agricultural and pigment chemicals operations came in at 53:28:19 and 55:23:22 in FY17, respectively.

#### Tsaker’s core operations

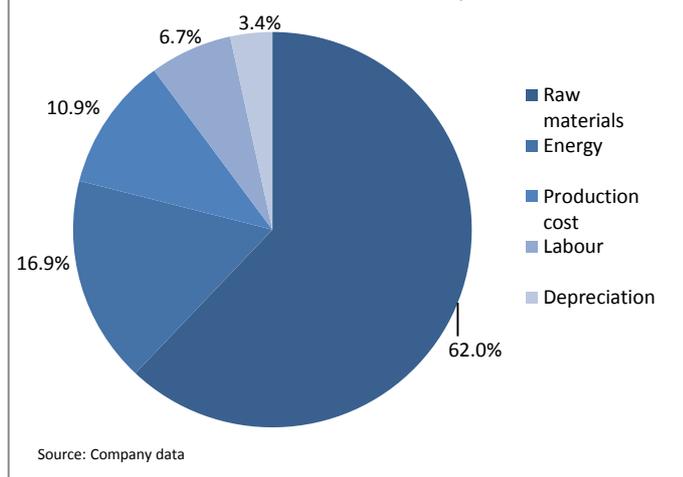


Source: Company data

#### Gross Profit Breakdown by Product Type, 2017

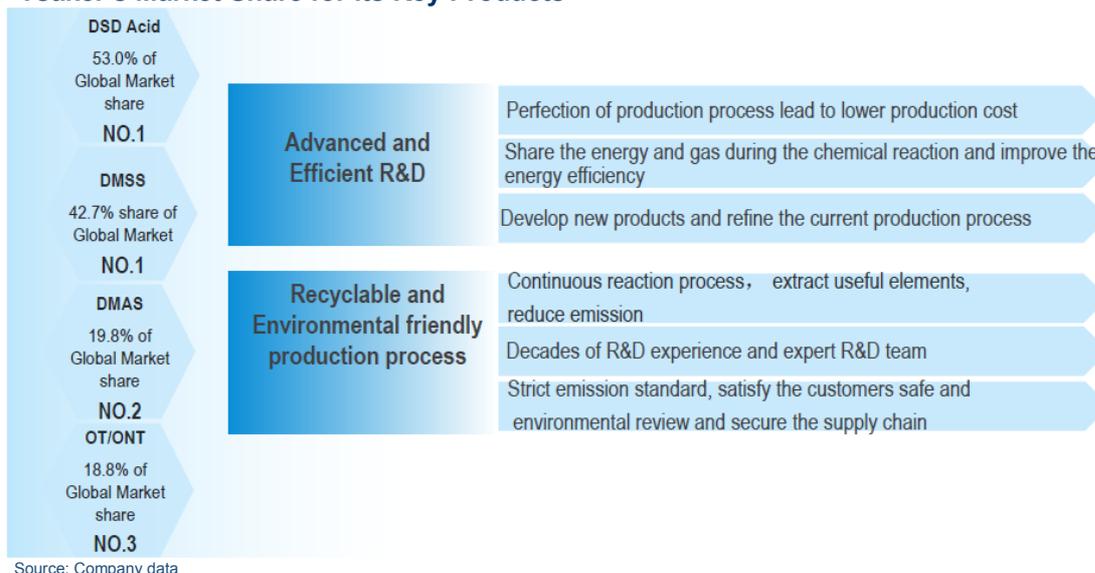


#### Breakdown of Cost of Sales, 2017

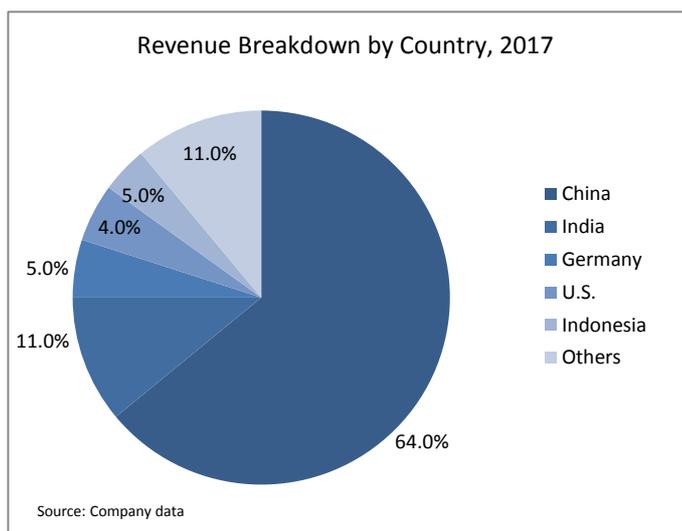


The Company garnered leading position for its key products, including DSD Acid, DMSS, DMAS and mononitrotoluene. According to Frost & Sullivan, the Company's production volume of DSD Acid and DMSS was ranked the first in the world, as it accounted for approximately 53.0% and 42.7% of the global market in 2016, respectively. The Company was also ranked second for the production of DMAS, which accounted for approximately 19.8% of the world's market share in 2016. The Company swiftly secured as the world's third OT/ONT producer in the agricultural chemical intermediates market and garnered approximately 18.8% of the global market in 2016, one year after its entry in the market.

### Tsaker's Market Share for its Key Products



The Company has a well-established sales network, which covers areas in Asia, Europe, North and South Americas. During FY17, geographical revenue mix for the Company came in at 64:11:5:5:4:11 from China, India, Germany, the U.S., Indonesia and other regions, respectively.



Thanks to the Company's prominent position in the market, the Company has maintained good business relationship with its core customers, which span over ten years. Its major customers are international leaders in the chemical manufacturing space. Top five customers accounted for 31.3% of the Company's sales in FY17.

### Tsaker's major customers



Source: Company data

### Favourable Macro Environment for the Market Leader

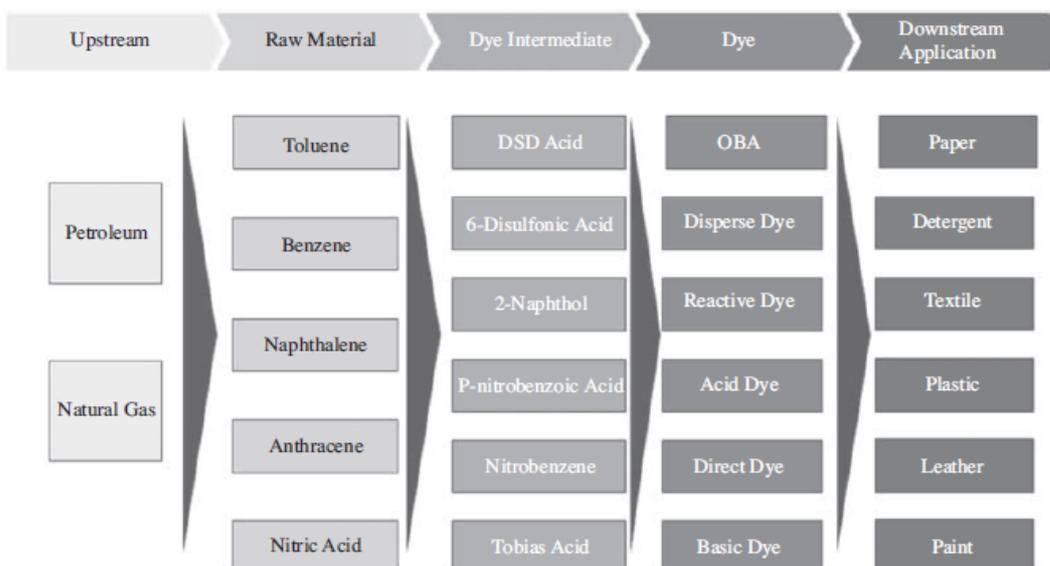
As the Chinese economy transforms and upgrades, we think the supply side reform will continue, as the regulation on environmental protection will be increasingly stringent and outdated production capacity will be eliminated. As enterprises that fail to meet the environmental protection standard shut down, it will lead to consolidation for the chemical industry and higher market concentration among leading players.

The positive impacts of the economic transformation and supply reform by the mainland government benefit market leaders, which was showcased by the Company's resilient GPM and ASPs for its core operations in the last 1-2 years. We believe the Company's continued quest to enhance environmental protection standards will aid itself maintaining its competitive edge against its peers and gaining market share, thereby resulting decent profit growth prospects.

### Leading Position in DSD Acid Production Inspires Dye Chemical Intermediates Segment

DSD Acid, the key product for its dye intermediate segment, can produce dyes and optical brightening agents ( "OBA" ) after being processed. It is widely used in downstream products, mainly paper, textile, detergents and cosmetics.

### Value Chain of DSD Acid and Mononitrotoluene Industry



Source: Company data

Sales volume of dye chemical intermediate increased by 11.3% YoY to 36,763 tons in FY17 (FY16: 33,018 tons). The Company has been operating at full capacity as its production volume approximated its designed capacity of 35,000 tonnes per annum.

While the price of raw materials of dye intermediates (toluene, coal, and iron powder) increased alongside the rally in oil price, the Company was able to transfer the impact of rising raw material price to downstream customers. We estimate its ASP hiked 23% YoY to RMB17,953/ton in FY17 and it led to an increase in segmental gross profit margin by 4.2-ppt from 25.9% in FY16 to about 30.1% in FY17, thereby bringing solid revenue and profit growth for dye intermediates sector.

All in all, revenue derived from the dye intermediates sector increased by 36.9% YoY to approximately RMB660mn in FY17, accounting for approximately 52.9% of total revenue. We estimate its GP rose 59% YoY to RMB199mn in FY17 and contributed 54.7% of the Company's overall GP in FY17.

The strong operating performance for DSD Acid production sustained in FY18. According to the management, average ASP for DSD Acid sustained its uptrend to reach about RMB25,500/ton in FY18, which was mainly thanks to the supply constraint amid increased environmental protection standards. GPM for DSD Acid production came in at about 38% in 1H18. The Company is building new facility for DSD Acid production with an annual production capacity of 25,000 tonnes, which is scheduled to be completed in 2H19.

According to proposed list of USD200 bn worth of products for tariff adjustment issued by the U.S. government, DSD Acid, the Company's main export products to the U.S., is subject to 10% additional tariff. The Company nonetheless expects immaterial impact to the overall sales and profit for its DCD Acid operation, thanks to its strong bargaining power given its market leadership that enables itself to transfer the cost hike to end users, as well as its overall immaterial reliance to U.S. market.

### **Strategically Benefit from Diversification to Agricultural Chemical Operation**

To achieve the upstream and downstream product integration, the Company began to engage in the field of agricultural chemical intermediates and start producing mononitrotoluene in 2015. The Company increased the production capacity of mononitrotoluene to 80,000 tons in March 2016.

Mononitrotoluene produces PNT, ONT and MNT simultaneously through chemical processes. PNT is the major raw material for producing DSD Acid while the main usage of ONT is for the production of OT. Further down the scale, a majority of MNT and OT are used to produce agricultural chemicals, particularly for herbicides.

By internally producing mononitrotoluene, the Company managed to secure the upstream raw material supplies and control cost of production for DSD Acid. Involvement in mononitrotoluene production simultaneously enhanced the Company's status in the fine chemical industry as well as increased its bargaining power.

As the largest PNT purchaser in the world, the Company's entry to the production of mononitrotoluene resulted a sizeable drop in its external purchase of PNT and led to an oversupply in the PNT market. As smaller and ineffective players for the manufacturing of mononitrotoluene were forced to reduce production or withdraw from the market, it helped speed up the process of consolidation of the industry.

Benefiting from industry integration, the Company raised the average selling price of its other downstream products such as ONT, OT and other products during FY17 and led to 13.0% YoY hike in divisional average selling price from RMB9,550 per ton in 2016 to RMB10,794 per ton in 2017.

Due to production restriction by the government and other reasons, sales volume decreased by 14.4% YoY to 32,414 tons in 2017 (2016: 37,851 tons). As the decline in sales volume outweighs the impact of higher selling prices, it led to 3.2% YoY drop in segmental revenue to RMB350mn in FY17. Thanks to the loss of economies of scale, the gross profit margin of the segment decreased by 1.9-ppt YoY to 24.2% in FY17, leading to 10.2% YoY drop in segmental gross profit to RMB85mn in FY17. The Company's foray to agricultural chemical operation is beneficial to the Company's overall profitability as it yields additional income and profit source.

**Strengthened Competitiveness from Combination of Dye and Agricultural Chemical Intermediates Segments**

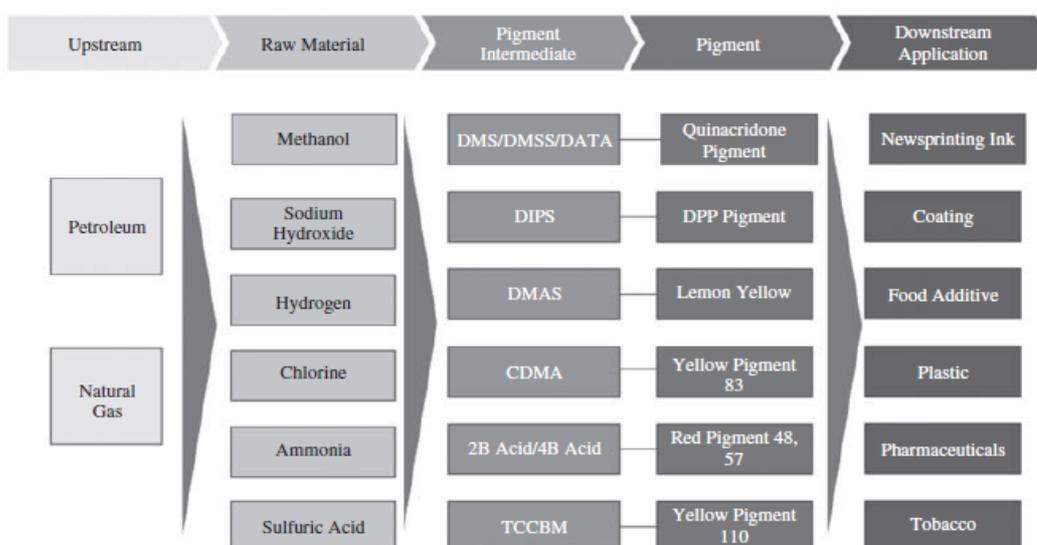
To support the business development and strategic planning, the Company combined the dye intermediates segment and agricultural chemical intermediates segment into the dye and agricultural chemical intermediates segment during 1H18 to implement a unified operation model for procurement, production and sales. We believe it will benefit the Company's overall operating performance in the long run amid enhanced operating efficiency.

Overall GPM for Dye and Agricultural Chemical Intermediates Segments jumped from 23.8% in 1H17 to 34.0% in 1H18, which was mainly attributable to the significant hike in ASP and GPM for DSD Acid production. The management guided that segmental GPM is likely to stay at high levels during 2H18 and FY19, thanks to resilient ASPs. We assume segmental GPM for dye and agricultural chemical intermediates businesses to hover at around 34-36% in FY18 and FY19, compared with an estimated 28% in FY17.

**Pigment Intermediate Segment is a Solid Earnings Contributor**

Another major product category for the Company is pigment intermediate (such as DMSS and DMAS), which are important raw materials for the production of pigments. DMSS and DMAS are mainly used as key raw materials for producing high-end paint pigments, photosensitive polymer, light color stabilizers, pesticides, bactericide, plastics, pharmaceuticals and food additives.

**Value Chain of Pigment Intermediate Industry**



Source: Company data

Thanks to its capacity expansion, it resulted 25.0% YoY increase in sales volume to 8,102 tons in FY17 (FY16: 6,482 tons). Due to the intensification of competition as certain players adopted price cutting strategy, average selling prices of pigment intermediates segment decreased by 4.3% YoY from RMB30,460 per ton in FY16 to RMB29,150 per ton in FY17. All in all, segmental revenue increased 19.6% YoY on higher sales volume whilst gross profit for the segment was flattish YoY, as the reduction in selling price led to 6.7-ppt YoY contraction in GPM to 33.7 % in FY17 (2016: 40.4%). We expect the segment to remain a solid contributor and forecast modest revenue and GP growth in FY18 and FY19.

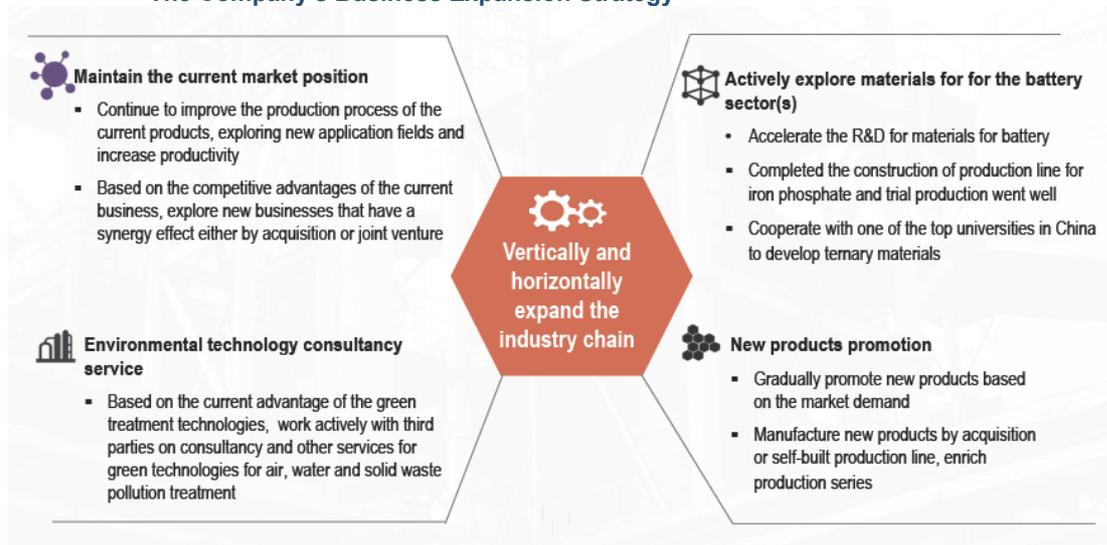
**Business Expansion Enhances Overall Profitability**

The Company adopts the strategy of expanding the capacity or/and upgrading technologies and operating efficiency for its existing products in order to continuously strengthen its market position in existing businesses. We expect the Company’s leading position in its traditional businesses will be sustained, thereby providing solid revenue, profits, and operating cash flows.

As a leading enterprise in the fine chemicals industry, the Company endeavours seeking new operation in order to broaden its income source. We think the Company’s diversification into related industries is beneficial for itself to maintain stable overall profit growth in the long run, as it will bring additional income source to the company and diversify its overall business risk.

After the enrichment of profit source via its entrance to the agricultural chemical intermediates space by producing mononitrotoluene since 2015, we believe the Company’s ongoing foray to the lithium battery materials and the environmental protection consultancy service space will provide additional earnings growth drivers in coming 1-2 years.

**The Company’s Business Expansion Strategy**



Source: Company data

**Foray to Lithium Battery Materials Provides Earnings Fillips**

Leveraging on the Company’s expertise in technological research and development as well as ample production experience in the fine chemical industry, the Company entered into the field of lithium battery materials in 2017. The Company constructed a production line with a capacity of 15,000 tonnes per annum for iron phosphate, the precursor of lithium battery cathode materials.

The facility locates in Cangzhou of Hebei and started pilot production in late-October 2017. In addition, the Company launched another production line for carbon nanotube paste, which is used as conductive agent for lithium batteries, in Dongying, Shandong Province. The production line was also put into pilot operation in October 2017.

In order to accelerate its reach in the field of ternary materials and continued to enrich product categories in the field of battery materials, the Company entered into a framework cooperation agreement with a top university in China in November 2017 to jointly research and develop precursors for binary and ternary battery cathode materials, thereby enhancing its market position in the field of battery materials.

The management guided that revenue contribution from lithium battery business may reach 10-20% of total revenue and the operation may attain GPM of about 20% after achieving production scale. As it takes time to fully ramp up the operation, we currently assume top line contribution of RMB100mn and GPM of 10% for the segment in FY19.

#### **Maiden Contract Highlights its Successful Entrance to the Environmental Protection Consultancy Service Space**

With mounting pressure and increasing demand for quality environmental protection treatment, the Company leverages on its expertise in environmental protection areas and spearheaded to environmental protection consulting business, focusing on environmental protection consultancy service for the atmosphere, sewage, and solid waste treatment.

The Company made a major breakthrough in the new business as it won the bid for the maiden contract worth RMB25mn for “Atmosphere Monitoring Construction and Post-Construction Operation and Maintenance Project of Major Enterprises in Cangzhou City” in November 2017.

The award of the project showcased the Company’s technical strength in the field of environmental protection, especially of air, water and solid waste monitoring and treatment. Environmental technology consultancy business generated revenue of RMB0.53mn in FY17, with a GPM of approximately 12.5%.

We believe the bulk of the revenue for the maiden contract will be booked in FY18 and the management guided that the Company is bidding other contracts, which may form the backdrop for the operation for FY19 and onwards.

We think revenue contribution from environmental technology consultancy service will increase over our forecast period and we assume top line contribution of RMB25mn and RMB40mn in FY18 and FY19, respectively. The Company guided GPM for the operation may fetch about 20-30% in the longer run.

#### **Solid Earnings Growth Prospects**

Overall revenue of the Company amounted to RMB1,247 mn in FY17, representing an increase of 19.8% YoY. Coupled with the leap in GPM to 29.1% in FY17 from 28.2% in FY16, gross profit jumped 23.6% YoY to RMB363 mn in FY17. NP amounted to RMB136 mn in FY17, an increase of 12.6% YoY.

The Company sustained stellar operating results in 1H18, as it enjoyed a 24.3% YoY leap in its top line to RMB754.6mn in 1H18. Thanks to material jump in GPM from 25.7% in 1H17 to 34.0% in 1H18, the Company chalked up a spectacular 64.4% and 111.3% YoY jump in gross profit and net profit to RMB256.7mn and RMB121.5mn in 1H18, respectively.

We think the significant hike in GPM for DSD Acid production will be the major earnings growth driver in FY18 whilst sustained resilient GPM for DSD Acid production and the additional contribution from its lithium battery materials and the environmental protection consultancy service segments to boost its FY19 results. For FY20, we believe DSD Acid business may enter another growth phase, as the Company's new production capacity of 25,000 tonnes will start to contribute to its bottom line after the planned completion in 2H19.

All in all, we project the Company to chalk up 30% CAGR in earnings during FY17-19, with a corresponding bottom line of RMB120mn, RMB136mn, RMB226mn and RMB265mn for FY16, FY17, FY18 and FY19, respectively. The Company also announced a positive profit alert mentioning its FY18 NP is expected to surge not less than 60% YoY.

**Valuation and Risks**

We see the price weakness of the counter in the past 1-2 months as a good bargain hunting opportunity on the Company, as we see no change in its sound fundamentals. Based on a forward FY19 PER of 9x, which represents an undemanding PEG of 0.3x and at the lower end of its post-listing PER band of 3-22x, we recommend Buy on the counter with a target price of HK\$2.50.

The main risk to our rating and the attainment of our target price is lower business demand than we expect, lower GPM than our forecast amid a price hike in raw material cost that may not be able to transfer price hike to its customers.



Source: Bloomberg, Company data, CMBC Securities

## Appendix 1. Financials

### Income Statement

Year Ended December 31	2015	2016	2017	2018F	2019F
	Rmb mn	Rmb mn	Rmb mn	Rmb mn	Rmb mn
Dye and agricultural chemical intermediates	694.7	843.7	1,010.0	1,238.2	1,327.1
Pigment intermediates	185.5	197.4	236.2	271.6	298.8
Battery materials	-	-	0.8	5.0	100.0
Environmental technology consultancy	-	-	0.5	25.0	40.0
<b>Turnover</b>	<b>880.3</b>	<b>1,041.1</b>	<b>1,247.5</b>	<b>1,539.8</b>	<b>1,765.8</b>
Dye and agricultural chemical intermediates	207.2	219.2	283.4	421.0	477.7
Pigment intermediates	67.7	79.8	79.6	89.6	98.6
Battery materials	-	-	-	0.5	10.0
Environmental technology consultancy	-	-	-	3.8	8.0
Others	(7.5)	(5.4)	-	-	-
<b>Gross profit</b>	<b>267.3</b>	<b>293.6</b>	<b>362.9</b>	<b>514.9</b>	<b>594.3</b>
Other income and gains. net	19.1	19.8	8.9	11.0	12.6
Selling expenses	(34.1)	(38.9)	(42.7)	(49.1)	(56.4)
Administration expenses	(97.9)	(90.6)	(121.8)	(140.1)	(161.1)
Finance costs	(7.3)	(10.3)	(15.6)	(17.9)	(20.6)
Other expenses	(5.7)	(19.1)	(10.8)	(13.3)	(10.7)
<b>Profit before taxation</b>	<b>141.4</b>	<b>154.5</b>	<b>181.0</b>	<b>305.5</b>	<b>358.1</b>
Taxation	(43.9)	(33.5)	(45.0)	(79.4)	(93.1)
<b>Net profit</b>	<b>97.5</b>	<b>120.9</b>	<b>136.1</b>	<b>226.1</b>	<b>265.0</b>
<b>Key ratios</b>					
GPM	30.4%	28.2%	29.1%	33.4%	33.7%
Selling expenses / Turnover	3.9%	3.7%	3.4%	3.2%	3.2%
Administration expenses / Turnover	11.1%	8.7%	9.8%	9.1%	9.1%
Tax rate	31.0%	21.7%	24.8%	26.0%	26.0%

Source: Company data, CMBC Securities Research estimates

## Balance Sheet

Year Ended December 31	2015	2016	2017	2018E	2019E
	RMB mn				
Cash and cash equivalents	194.2	396.7	359.8	244.8	243.4
Retricted cash	300.5	72.5	17.9	17.9	17.9
Bill and trade receivables	235.5	281.0	328.2	324.1	334.5
Inventories	79.2	81.8	115.0	140.5	159.5
Other receivables	67.7	94.2	157.0	157.0	157.0
Other current assets	13.9	-	-	-	-
<b>Total current assets</b>	<b>891.0</b>	<b>926.2</b>	<b>977.9</b>	<b>884.3</b>	<b>912.3</b>
<b>Net PP&amp;E (including AUC)</b>	733.0	882.0	1,119.7	1,355.1	1,528.9
<b>Net intangibles</b>	-	0.1	1.2	1.2	1.2
Equity investments	-	0.9	0.9	0.9	0.9
Investments in securities or other	-	18.3	31.3	31.3	31.3
<b>Total investments</b>	-	<b>19.2</b>	<b>32.2</b>	<b>32.2</b>	<b>32.2</b>
LT deferred tax assets	26.8	27.0	23.9	26.3	28.9
Other long term assets	89.8	85.2	101.4	109.5	118.3
<b>Total assets</b>	<b>1,740.6</b>	<b>1,939.7</b>	<b>2,256.3</b>	<b>2,408.6</b>	<b>2,621.7</b>
Accounts payable	250.4	256.5	369.8	388.0	422.7
Short-term debt	317.3	241.6	194.6	155.7	147.9
Other current liabilities	301.9	218.8	141.0	148.0	155.4
<b>Total current liabilities</b>	<b>869.7</b>	<b>716.9</b>	<b>705.3</b>	<b>691.7</b>	<b>726.0</b>
Long-term debt	-	240.0	387.4	368.0	349.6
Deferred tax liabilities	1.6	-	-	-	-
Other LT liabilities	6.8	21.8	21.6	21.6	21.6
<b>Total non-current liabilities</b>	<b>8.4</b>	<b>261.8</b>	<b>409.0</b>	<b>389.6</b>	<b>371.2</b>
<b>Total liabilities</b>	<b>878.0</b>	<b>978.7</b>	<b>1,114.3</b>	<b>1,081.3</b>	<b>1,097.2</b>
<b>Common shareholders' equity</b>					
Issued capital	30.6	30.6	67.5	67.5	67.5
Reserves	831.9	930.3	1,073.8	1,259.1	1,456.3
<b>Common shareholders' equity</b>	<b>862.6</b>	<b>961.0</b>	<b>1,141.3</b>	<b>1,326.6</b>	<b>1,523.8</b>
Minority interests	-	-	0.6	0.6	0.6
<b>Total liabilities and equity</b>	<b>1,740.6</b>	<b>1,939.7</b>	<b>2,256.3</b>	<b>2,408.6</b>	<b>2,621.7</b>

Source: Company data, CMBC Securities Research estimates

## Cash flow statement

Year Ended December 31	2015	2016	2017	2018E	2019E
	RMB mn				
<b>Operating activities</b>					
Profit before taxes	141.4	154.5	181.0	305.5	358.1
Depreciation and amortization	48.0	58.7	62.6	64.6	76.3
Increase/decrease in working capital	(12.8)	(34.4)	(3.8)	3.8	12.7
Other operating cash flow items	(89.0)	(7.5)	(48.2)	(78.8)	(93.9)
<b>Net cash flow from operating activities</b>	<b>87.5</b>	<b>171.3</b>	<b>191.6</b>	<b>295.2</b>	<b>353.2</b>
<b>Investing activities</b>					
Capital expenditure	(291.9)	(229.6)	(246.0)	(300.0)	(250.0)
Acquisition/divestiture	(32.7)	(35.8)	(14.1)	(16.2)	(18.6)
Proceeds from disposal of assets	2.3	1.3	0.2	0.0	0.0
Other investment cash flow items	0.9	15.9	2.5	5.0	8.0
<b>Net cash flow from investing activities</b>	<b>(321.4)</b>	<b>(248.1)</b>	<b>(257.3)</b>	<b>(311.2)</b>	<b>(260.6)</b>
<b>Financing activities</b>					
Dividends paid	0.0	(31.1)	(38.1)	(40.7)	(67.8)
Share repurchase/issue	378.8	0.0	93.9	0.0	0.0
Increase/decrease in debt&notes payable	(63.7)	164.3	17.1	(58.3)	(26.2)
Other financing cash flow items	11.3	137.1	(45.3)	0.0	0.0
<b>Net cash flow from financing activities</b>	<b>326.5</b>	<b>270.3</b>	<b>27.6</b>	<b>(99.0)</b>	<b>(94.0)</b>
<b>Total cash flow</b>	<b>92.6</b>	<b>193.5</b>	<b>(38.1)</b>	<b>(115.0)</b>	<b>(1.4)</b>

Source: Company data, CMBC Securities Research estimates

## Disclosures

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