

# Altech Chemicals Ltd

## INITIATION REPORT

### Stars align for HPA developer

#### Overview

**With financing due to be completed in the coming months, Altech is on track to commence construction of its high purity alumina (HPA) Project later this year. The timing could not be better with demand for HPA set to triple over the next decade.**

HPA is a **high-value in-demand product, which is classified depending on its purity level. Altech plan to produce 4N HPA**, which is the critical ingredient for the manufacture of synthetic sapphire.

Altech has streamlined and simplified the process to produce HPA through the use of kaolin as the primary feedstock, and will use material mined from the company's wholly-owned Meckering kaolin resource in Western Australia. Altech has forecast that its **cost of production will be one of the lowest in the industry (BFS - Op cost US\$9,070 / t vs. current reported HPA price in Japan of ~US\$30,000 / t).**

Altech has signed a **10-year binding offtake sales agreement with Mitsubishi** for the global distribution of the company's full 4,000t of HPA production per annum commencing from the first year of production.

#### Investment View

**Altech identified the growing demand for HPA more than six years ago as it became aware that many new technologies as well as traditional applications were dependent on HPA (synthetic sapphire, LED substrates, lithium-ion battery separators, and smartphone components).**

This led the company to refine a known processing technology created by the US Government during the 1970/80's, which used kaolin (or aluminous clay material) as a feedstock for the production of HPA.

Six years later, the company has completed numerous studies including a Bankable Feasibility Study, signed a 10 year offtake agreement with Mitsubishi and is close to finalising all permits and approvals for the project's development.

The next major milestone for Altech is to close a debt financing facility with German bank KfW IPEX-Bank. Closing this facility will not only take the company one step closer to commencing construction (2H17) but should also see the significant appreciation in the current share price, which is currently at a significant discount compared to our valuation.

#### Valuation

We initiated coverage on Altech with a valuation of **\$0.55 / share (share price \$0.15)**. As development milestones are achieved (debt & equity financing, construction and production) we will reduce our risk weighting (**un-risked valuation \$0.88 / share**).

### Industrial Technology

#### February 2017

Share Price	A\$0.15
TSI Valuation	\$A0.55
Implied Return	267%

#### Company Information

ASX Code	ATC
Ord Shares	266M
Market Cap	\$40M
Cash & Inv. (Dec 17)	A\$5M
Total Debt (Dec 17)	A\$0M

#### Board & Management

Luke Atkins	Chairman
Iggy Tan	MD
Peter Bailey	Non-Exec
Dan Tenardi	Non-Exec
Royal Highness Prince Yaacob Khrya	Non-Exec

#### Substantial Shareholders

Board & Management	18.9%
Melewar International	6.4%
MAA Group Berhad	4.4%

#### Share Price

52 week High	\$0.19
52 week Low	\$0.08
3m avg daily vol	921k
3m avg daily value	\$127k

#### Initiation Video



Full Report

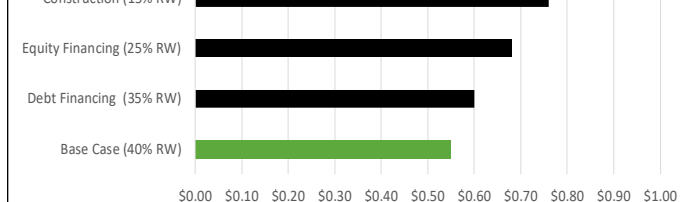
## Altech Chemicals

<b>Company Ticker</b>	ATC.ASX	<b>Cash &amp; Investment - (Dec 16) (A\$ m)</b>	4.7
<b>Shares on issue - current (m)</b>	266.2	<b>Debt - (Dec 16) (A\$ m)</b>	0.0
<b>Share Price (A\$)</b>	0.150	<b>EV (A\$m)</b>	35.2
<b>Market Cap (A\$m)</b>	39.9	<b>Valuation/share (A\$)</b>	0.55
<b>Industry</b>	HPA / Chemical	<b>Intrinsic Value - TSI (A\$m)</b>	347.0
<b>Stage of Development</b>	Dev.	<b>Implied Return (%)</b>	267%
<b>Project Location</b>	Aust / Malaysia	<b>P/NAV (x)</b>	0.27

Year end: 30 June

Valuation	Disc <sup>1</sup> rate	Risk Discount	Valuation (A\$m)	Valuation / share (A\$)*	Price Assumptions	2019	2020	2021	2022
HPA Project - Base Case	10.0%	60%	\$309.9	\$0.490	4N - HPA (US\$ / t)	\$11,500	\$23,000	\$23,000	\$23,000
Current Cash & Investment			\$4.7	\$0.008	3N - HPA (US\$ / t)	\$4,500	\$9,000	\$9,000	\$9,000
Unpaid capital			\$32.4	\$0.052	SGA (US\$ / t)	\$200	\$400	\$400	\$400
					FX (A\$:USD\$)	\$0.75	\$0.75	\$0.75	\$0.75

Total NAV	Valuation (A\$m)	Valuation / share (A\$)*	Mining & production stats	2019	2020	2021	2022
<b>\$347.0</b>	<b>\$347.0</b>	<b>\$0.55</b>	Ore Mined (t)	128,580	0	0	122,299
* Fully diluted for project development		626.3	Tonnes processed (t)	12,806	28,695	34,780	40,403
**Inclusive of tax & corporate costs			Recovery (%)	8.9%	8.9%	8.9%	8.9%
			4N HPA produced (t)	842	2,002	2,616	3,364
			3N HPA produced (t)	149	301	300	151
			SGA produced (t)	149	251	180	81



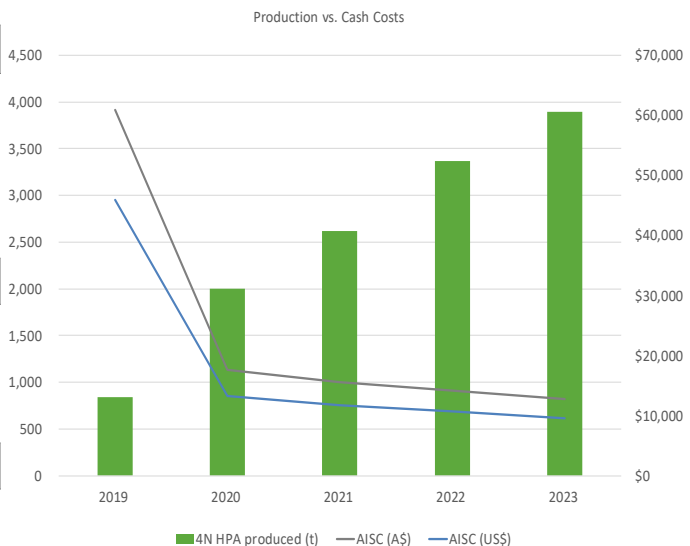
Operating Costs - 4N HPA	2019	2020	2021	2022
AISC (US\$)	\$45,934	\$13,257	\$11,738	\$10,688
AISC (A\$)	\$60,921	\$17,582	\$15,568	\$14,176

Reserve	Tonnes (Mt)	Grade (AI2O3 %)	Contained (AI2O3)	As at (date):
Proven	0.5	30.0%	0.1	14 - Feb - 17
Probable	0.8	30.0%	0.2	14 - Feb - 17
<b>Total</b>	<b>1.2</b>		<b>0.4</b>	

Ratios	2019	2020	2021	2022
EPS (A\$)	\$0.01	\$0.05	\$0.07	\$0.09
FCFPS (A\$)	<b>(-\$0.04)</b>	\$0.05	\$0.07	\$0.09
P/E ratio (x)	12.5	3.3	2.2	1.7
P/FCF (x)	<b>-4.0</b>	3.1	2.1	1.6
Shares on issue (m)	626.3	626.3	626.3	626.3

Resource	Tonnes (Mt)	Grade (AI2O3 %)	Contained (AI2O3)	As at (date):
Measured	1.5	30.0%	0.5	14 - Feb - 17
Indicated	3.3	30.0%	1.0	14 - Feb - 17
Inferred	0.8	29.1%	0.2	14 - Feb - 17
<b>Total</b>	<b>5.6</b>		<b>1.7</b>	<b>14 - Feb - 17</b>

Earnings (A\$ m)	2019	2020	2021	2022
Revenue & other Inc.	\$27.7	\$65.3	\$84.5	\$106.5
Operating Costs	\$12.6	\$25.0	\$30.8	\$38.0
Other Expenses	\$5.3	\$6.6	\$6.6	\$6.6
EBITDA	\$9.8	\$33.7	\$47.2	\$61.9
Depreciation	\$1.1	\$2.6	\$3.1	\$3.7
Interest Expense	\$1.2	\$2.3	\$2.0	\$1.8
Tax	\$0.0	\$0.0	\$0.0	\$0.0
Profit (loss) after tax	\$7.5	\$28.8	\$42.0	\$56.4



Balance Sheet (A\$ m)	2019	2020	2021	2022
<b>Assets</b>				
Cash	\$14.2	\$36.6	\$70.1	\$118.6
PPE & Exp. & Dev.	\$115.1	\$113.9	\$112.0	\$109.7
Total Assets	\$130.1	\$151.2	\$182.8	\$229.0
<b>Liabilities</b>				
Debt Facility	\$92.8	\$85.1	\$74.8	\$64.5
<b>Cash flow Generation (A\$ m)</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Cash flow generated	\$7.9	\$22.4	\$33.5	\$48.5
Equity Placement	\$21.8	\$0.0	\$0.0	\$0.0
Capital Expenditure	\$32.3	\$1.3	\$1.3	\$1.3

Source: Company Data, TSI Assumptions

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