

# Albemarle Corporation Fourth Quarter 2016 Earnings

Conference Call/Webcast

Tuesday, Feb 28<sup>th</sup>, 2017

9:00am ET



# Forward-Looking Statements

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Some of the information presented in this presentation and the conference call and discussions that follow, including, without limitation, statements with respect to product development, changes in productivity, market trends, price, expected growth and earnings, input costs, surcharges, tax rates, stock repurchases, dividends, cash flow generation, costs and cost synergies, portfolio diversification, economic trends, outlook and all other information relating to matters that are not historical facts may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. There can be no assurance that actual results will not differ materially.

Factors that could cause actual results to differ materially include, without limitation: changes in economic and business conditions; changes in financial and operating performance of our major customers and industries and markets served by us; the timing of orders received from customers; the gain or loss of significant customers; competition from other manufacturers; changes in the demand for our products; limitations or prohibitions on the manufacture and sale of our products; availability of raw materials; changes in the cost of raw materials and energy; changes in our markets in general; fluctuations in foreign currencies; changes in laws and government regulation impacting our operations or our products; the occurrence of regulatory proceedings, claims or litigation; the occurrence of cyber security breaches, terrorist attacks, industrial accidents, natural disasters, or climate change; the inability to maintain current levels of product or premises liability insurance or the denial of such coverage; political unrest affecting the global economy; political instability affecting our manufacturing operations or joint ventures; changes in accounting standards; the inability to achieve results from our global manufacturing cost reduction initiatives as well as our ongoing continuous improvement and rationalization programs; changes in the jurisdictional mix of our earnings and changes in tax laws and rates; changes in monetary policies, inflation or interest rates; volatility and substantial uncertainties in the debt and equity markets; technology or intellectual property infringement; decisions we may make in the future; the ability to successfully execute, operate and integrate acquisitions and divestitures, and realize estimated synergies; and the other factors detailed from time to time in the reports we file with the SEC, including those described under "Risk Factors" in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. These forward-looking statements speak only as of the date of this presentation. We assume no obligation to provide any revisions to any forward-looking statements should circumstances change, except as otherwise required by securities and other applicable laws.

## Non-GAAP Financial Measures

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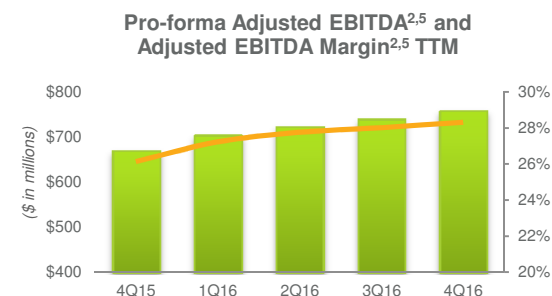
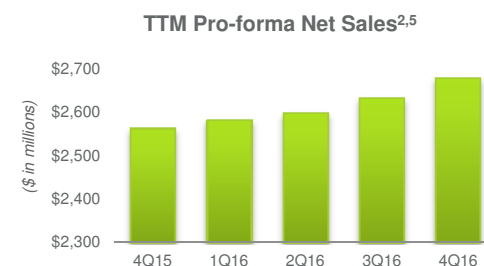
It should be noted that adjusted net income attributable to Albemarle Corporation (“adjusted earnings”), adjusted net income from continuing operations, adjusted diluted earnings per share attributable to Albemarle Corporation, adjusted diluted earnings per share from continuing operations, adjusted effective income tax rates, segment operating profit, segment income, pro-forma net sales, net sales excluding the impact of foreign exchange translation (“ex FX”), EBITDA, adjusted EBITDA, adjusted EBITDA by operating segment, EBITDA margin, adjusted EBITDA margin, pro-forma adjusted EBITDA, pro-forma adjusted EBITDA margin, adjusted EBITDA excluding the impact of foreign exchange translation (“ex FX”), adjusted EBITDA margin excluding the impact of foreign exchange translation (“ex FX”), net debt to adjusted EBITDA, gross debt to adjusted EBITDA, free cash flow, and adjusted free cash flow are financial measures that are not required by, or presented in accordance with, accounting principles generally accepted in the United States, or GAAP. These measures are presented here to provide additional useful measurements to review our operations, provide transparency to investors and enable period-to-period comparability of financial performance. The Company’s chief operating decision maker uses these measures to assess the ongoing performance of the Company and its segments, as well as for business and enterprise planning purposes.

A description of these and other non-GAAP financial measures that we use to evaluate our operations and financial performance, and reconciliation of these non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, can be found in the Appendix to this presentation, which is posted in the Investors section of our website at [www.albemarle.com](http://www.albemarle.com), under “Non-GAAP Reconciliations” under “Financials.” The Company does not provide a reconciliation of forward looking non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, as the Company is unable to estimate significant non-recurring or unusual items without unreasonable effort. The amounts and timing of these items are uncertain and could be material to the Company’s results calculated in accordance with GAAP.

# Financial Highlights – 4<sup>th</sup> Qtr & Full Year 2016<sup>1</sup>

As Reported	Q4 2016 Results	vs Prior Year	FY 2016 Results	vs Prior Year
<small>\$ in millions, except EPS</small>				
Net Sales	\$ 697	(4%)	\$ 2,677	(5%)
EBITDA <sup>2</sup>	\$ 145	(23%)	\$ 794	+38%
Diluted EPS Attributable to Albemarle Corporation <sup>3</sup>	\$ 5.30	+242%	\$ 5.68	+89%

As Adjusted	Q4 2016 Results	vs PF Prior Year <sup>4,5</sup>	FY 2016 Results	vs PF Prior Year <sup>4,5</sup>
<small>\$ in millions, except EPS</small>				
Pro-forma Net Sales <sup>2</sup>	\$ 697	+7%	\$ 2,677	+5%
Adjusted EBITDA <sup>2</sup>	\$ 187	+12%	\$ 758	+13%
Adjusted Diluted EPS <sup>2</sup>	\$ 0.78	(12%)	\$ 3.57	+20%



<sup>1</sup> Continuing operations unless otherwise noted.

<sup>2</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

<sup>3</sup> Diluted EPS attributable to Albemarle includes \$4.81 and \$1.19 per diluted share related to gain on sale of the Chemetall Surface Treatment business in fourth quarter 2016 and full year 2016, respectively.

<sup>4</sup> Calculated using pro-forma Q4 2015 & FY2015.

<sup>5</sup> Pro-forma financials exclude discontinued operations, net impact of divested businesses (Minerals, Metal Sulfides) and non-cash FX gain on pre-tax of \$52.4 million associated with cash on hand subsequent to the ROC acquisition. See pro-forma reconciliations in Appendix.

# Full Year 2017 Guidance

## Lithium & Adv. Materials

Lithium adj. EBITDA<sup>2</sup> growth of >20%, PCS relatively flat

## Bromine Specialties

Adj. EBITDA<sup>2</sup> comparable to 2016

## Refining Solutions

Adj. EBITDA<sup>2</sup> growth in the low single digits vs 2016

	FY 2016 Actuals <sup>1</sup>		FY 2017 Guidance	
Net Sales	\$2.7B	▲	\$2.80 – 2.95B	→ <b>Net sales growth of 5 – 10%</b>
Adjusted EBITDA <sup>2,3</sup>	\$758M	▲	\$800 – 840M	→ <b>Adj EBITDA growth of 6 – 11%</b>
Adjusted EBITDA Margin <sup>2,3</sup>	28%		28 - 29%	
Adjusted Diluted EPS <sup>2,4</sup>	\$3.57	▲	\$4.00 – 4.25	→ <b>Adj Diluted EPS growth of 12 – 19%</b>
D&A	\$191M		\$175 – 195M	
Net Cash from Operations <sup>5,6</sup>	\$733M	▼	\$225 – 325M	
Capital Expenditures <sup>7</sup>	\$197M	▲	\$350 – 400M	
Adjusted Free Cash Flow <sup>5,6</sup>	\$672M	▼	\$200 – 300M	→ <b>Accelerating lithium investment to capture 50% of demand growth over the next several years, maximize production from our low-cost resources</b>

<sup>1</sup> FY 2016 actuals represent continuing operations only unless otherwise noted.

<sup>2</sup> Non-GAAP measure. See Appendix for Non-GAAP reconciliations of FY 2016 measures.

<sup>3</sup> Reflects EBITDA attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

<sup>4</sup> Reflects Net Income attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

<sup>5</sup> FY 2016 Net Cash from Operations and Adjusted Free Cash Flow include discontinued operations (Chemetal®). Free Cash Flow is a non-GAAP measure defined as Net Cash from Operations, add back pension and post-retirement contributions and subtract capital expenditures. Additionally, FY 2016 Free Cash Flow includes acquisition related cash expenses and cash taxes on repatriation of approximately \$115M which are excluded in Adjusted Free Cash Flow. See slide 17 for details.

<sup>6</sup> FY 2017 Net Cash from Operations guidance includes \$325-375M of expected one-time cash expenses and taxes, including premiums paid to extinguish debt, integration related cash expenses (*Jiangxi Jiangli*) and cash taxes on the sale of Chemetal® that are excluded from Adjusted Free Cash Flow guidance.

<sup>7</sup> FY 2016 Capital Expenditures includes ~\$19M related to discontinued operations (Chemetal®).

# Key Developments – Full Year 2016

## Lithium Growth

- We expect to have the capacity to produce >160,000 MT LCE by 2021 with unmatched geographic diversity of resources and conversion assets.

~80% of lithium salts business under long-term contracts (3-5 years)

### Salar de Atacama, Chile

- Signed amended lithium production rights agreement with the Chilean economic development agency (“CORFO”)
- Authority to produce ~80,000 MT LCE’s on an annual basis through 2043
- Green-lighted the construction of a third battery grade lithium carbonate plant, expected to be completed in 2020
- Qualified battery grade lithium carbonate production at second plant, prepared for volume contribution in 2017



### China

- Completed acquisition of Jiangxi Jiangli New Materials’ lithium salts production assets
- Existing lithium salts capacity of ~15,000 MT per year
- 20-25,000 MT expansion planned, completion expected for 2018

### Antofolla, Argentina

- Entered into agreement for exclusive exploration and acquisition rights of lithium resource
- Based on existing data, we believe this resource will be certified as the largest in Argentina
- Study of resource and commercial viability underway; decision expected within 1-2 years

# Key Developments – Full Year 2016

## Managing the Portfolio

- *We've accelerated our transformation into a company focused on powering increased energy efficiency around the world through leading lithium and refining catalysts businesses.*

### Completed Divestitures:

**Chemetall® Surface Treatment**  
~ \$3.1 billion

- Completed sale to BASF in December 2016

**Metal Sulfides**  
~ \$137 million

- Completed sale to Treibacher Industrie AG in January 2016

**Minerals**  
~ \$187 million

- Completed sale to Huber Engineered materials in February 2016

**Combined Multiple of ~13.7x EV/EBITDA<sup>1</sup>**

### Priority for Proceeds:

#### 1) Debt reduction

- Already reached target net debt to adj. EBITDA ratio by retiring ~\$1.7 billion of debt
  - ~\$1.0 billion retired in 4Q16, an additional ~\$0.7 billion retired through February 2017
  - Long-term target net debt to adj. EBITDA ratio: 2 - 2 ½ X

#### 2) Investing in the growth of our Lithium and Refining Solutions businesses

#### 3) Returning cash to shareholders

- \$250 million of share repurchases in 1H17 approved by board in February 2017
- Dividend increase of 5% announced Feb 23, 2017 – 23<sup>rd</sup> consecutive year of increases

<sup>1</sup> Enterprise Value (EV) based on net proceeds. Trailing-twelve months (TTM) adjusted EBITDA as of the month prior to the sale of each respective business. TTM Adjusted EBITDA for Chemetall®, Metal Sulfides, and Minerals were approximately \$214M, \$18M, and \$19M, respectively.

# Key Developments – Full Year 2016

## Focus on Execution

- *We're delivering strong results through operational excellence in all aspects of the company.*

- ✓ **Each core business meeting expectations:**

**Lithium & Adv. Materials**

**16% growth** in adj. EBITDA<sup>1</sup> despite headwinds in PCS

**Bromine Specialties**

**2% growth** in adj. EBITDA<sup>1</sup>, overcoming ~\$15 million headwind from loss of methyl bromide contract

**Refining Solutions**

**21% growth** in adj. EBITDA<sup>1</sup> driven by CFT recovery

- ✓ **Delivered adjusted Free Cash Flow<sup>2</sup> of \$672 million**

Net cash from operations of \$733 million, an all-time high for the company

- ✓ **Safest year in Albemarle's history**

Record lows in work days missed, severity rating for lost time injuries, and environmental incidents

Focus on safe operations amidst change is a tribute to the quality of our employees

- ✓ **Continued successful integration, management of changes in portfolio**

Integration cost savings of ~\$150 million<sup>3</sup>

Tax efficient divestitures of non-core businesses

<sup>1</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

<sup>2</sup> Free Cash Flow and Adjusted Free Cash Flow includes discontinued operations (Chemetal®). Free Cash Flow is a non-GAAP measure defined as Net Cash from Operations, add back pension and post-retirement contributions and subtract capital expenditures. Additionally, FY 2016 Free Cash Flow includes acquisition related cash expenses and cash taxes on repatriation of \$115M which are excluded in Adjusted Free Cash Flow. See slide 17 for details.

<sup>3</sup> Includes integration cost savings related to Chemetal®.



# Full Year 2016 Financial Results<sup>1</sup>

	FY 2016 (\$ in millions, except EPS)	FY 2015 (\$ in millions, except EPS)	Pro-forma FY 2015 <sup>2</sup> (\$ in millions, except EPS)	FY 2016 YoY (vs Pro-forma FY 2015)
Net Sales	\$ 2,677	\$ 2,826	\$ 2,561	5%
Net Sales ex F/X	\$ 2,677			5%
Adjusted EBITDA <sup>3,5</sup>	\$ 758	\$ 756	\$ 669	13%
Adj. EBITDA ex F/X <sup>5</sup>	\$ 751			12%
Adjusted EBITDA Margin <sup>3,5</sup>	28%	27%	26%	219 bps
Adjusted Net Income <sup>3,4</sup>	\$ 404	\$ 392	\$ 330	22%
Adjusted Diluted EPS <sup>3,4</sup>	\$ 3.57	\$ 3.52	\$ 2.96	20%

<sup>1</sup>All measures reflect continuing operations only.

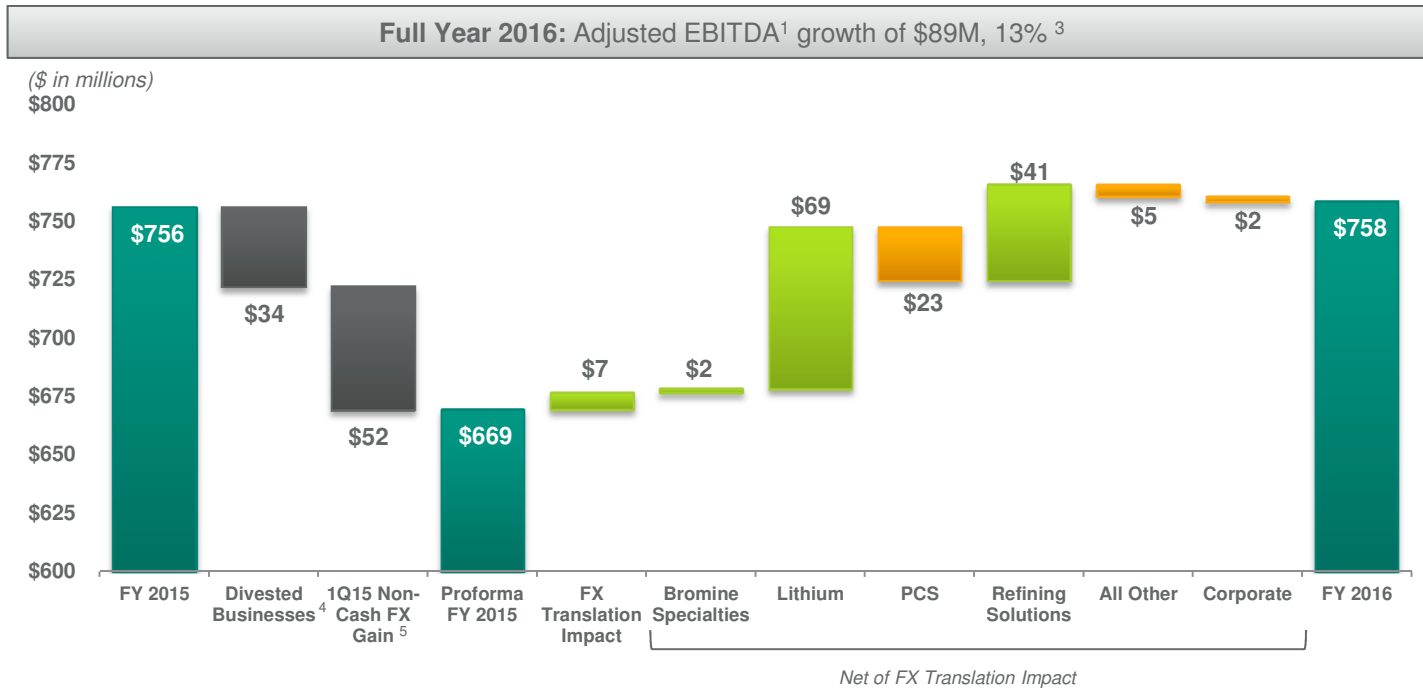
<sup>2</sup>Pro-forma financials exclude discontinued operations, net impact of divested businesses (Minerals, Metal Sulfides) and non-cash FX gain on pre-tax of \$52.4 million associated with cash on hand subsequent to the ROC acquisition. See pro-forma reconciliations in Appendix.

<sup>3</sup>Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

<sup>4</sup>Reflects Net Income attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

<sup>5</sup>Reflects EBITDA attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

# Full Year 2016 Adjusted EBITDA<sup>1</sup> Bridge<sup>2</sup>



<sup>1</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix. Bridge numbers may not reconcile due to rounding.

<sup>2</sup> Continuing operations only.

<sup>3</sup> Year-over-year growth calculated against pro-forma FY 2015. See pro-forma reconciliations in Appendix.

<sup>4</sup> Net impact from Metal Sulfides and Minerals businesses divested in January 2016 and February 2016, respectively.

<sup>5</sup> Q1 2015 non-cash FX gain on pre-tax of \$52.4 million associated with cash on hand subsequent to the ROC acquisition.

# Fourth Quarter 2016 Financial Results<sup>1</sup>

	4Q 2016 (\$ in millions, except EPS)	4Q 2015 (\$ in millions, except EPS)	Pro-forma 4Q 2015 <sup>2</sup> (\$ in millions, except EPS)	4Q 2016 YoY (vs Pro-forma 4Q 2015)
Net Sales	\$ 697	\$ 723	\$ 652	7%
Net Sales ex F/X	\$ 695			7%
Adjusted EBITDA <sup>3,5</sup>	\$ 187	\$ 174	\$ 167	12%
Adj. EBITDA ex F/X <sup>5</sup>	\$ 179			7%
Adjusted EBITDA Margin <sup>3,5</sup>	27%	24%	26%	132 bps
Adjusted Net Income <sup>3,4</sup>	\$ 89	\$ 108	\$ 101	(11%)
Adjusted Diluted EPS <sup>3,4</sup>	\$ 0.78	\$ 0.96	\$ 0.89	(12%)

<sup>1</sup>All measures reflect continuing operations only.

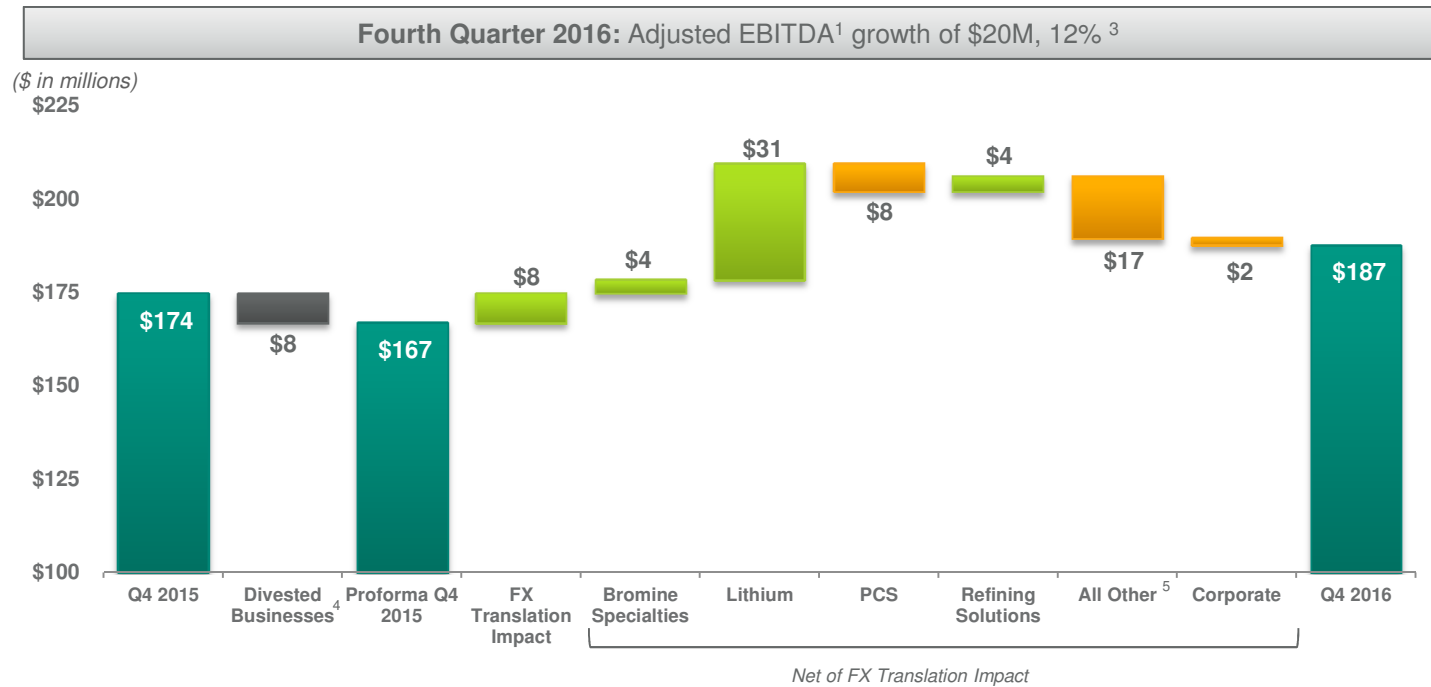
<sup>2</sup>Excludes net impact of divested businesses (Minerals, Metal Sulfides) and discontinued operations (Chemetal®).

<sup>3</sup>Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

<sup>4</sup>Reflects Net Income attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

<sup>5</sup>Reflects EBITDA attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

# Fourth Quarter 2016 Adjusted EBITDA<sup>1</sup> Bridge<sup>2</sup>



<sup>1</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix. Bridge numbers may not reconcile due to rounding.

<sup>2</sup> Continuing operations only.

<sup>3</sup> Year-over-year growth calculated against pro-forma Q4 2015.

<sup>4</sup> Net impact from Metal Sulfides and Minerals businesses divested in January 2016 and February 2016, respectively.

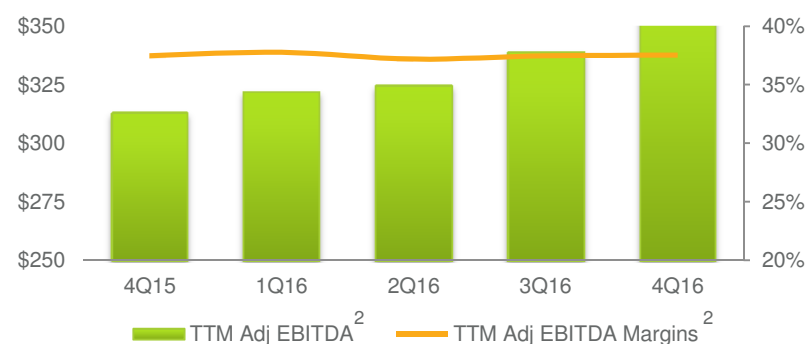
<sup>5</sup> Fine Chemistry Services (FCS) business faced difficult year-over-year comparison in 4Q16; full year of 2015 adj. EBITDA realized in 4Q15.

# Lithium and Advanced Materials

## 4<sup>th</sup> Qtr & Full Year Performance

(\$ in millions)	4Q 2016	Δ 4Q 2015	FY 2016	Δ FY 2015
<b>Net Sales</b>	<b>\$278</b>	<b>30%</b>	<b>\$968</b>	<b>16%</b>
<i>Net Sales ex FX<sup>1</sup></i>	\$277	30%	\$968	16%
<b>Adj. EBITDA</b>	<b>\$102</b>	<b>32%</b>	<b>\$363</b>	<b>16%</b>
<i>Adj. EBITDA ex FX<sup>1</sup></i>	\$101	30%	\$359	15%
<b>Adj. EBITDA Margin</b>	<b>37%</b>	<b>44 bps</b>	<b>38%</b>	<b>4 bps</b>
<i>Adj. EBITDA Margin ex FX<sup>1</sup></i>	37%	13 bps	37%	(39) bps

## Historical Trend



## Performance Drivers

- Lithium's strong fourth quarter 2016 contributed to full year 2016 volume growth and price improvement of 18% and 14%, respectively, primarily driven by battery-grade lithium salts.
- PCS performance was weaker than expected in fourth quarter 2016, experiencing headwinds from continued competitive challenges in organometallics and catalysts as well as operational issues at one of our catalysts manufacturing units. Full year 2016 performance was impacted by the same issues as well as the Sun Edison bankruptcy and increased competition in our Curatives business as a competitor returned to full production after an extended outage.

<sup>1</sup> Non-GAAP measure. Favorable FX impact on 4Q Net Sales and Adj. EBITDA of \$1M and \$2M, respectively. Favorable FX impact on FY Adj. EBITDA of \$4M.

<sup>2</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

# Lithium and Adv. Materials – Lithium and PCS detail

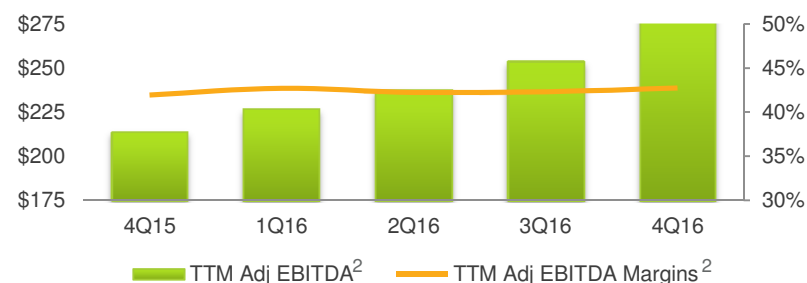
## Lithium – 4<sup>th</sup> Qtr & FY Performance

(\$ in millions)	4Q	Δ 4Q	FY	Δ FY
	2016	2015	2016	2015
<b>Net Sales</b>	<b>\$208</b>	<b>50%</b>	<b>\$669</b>	<b>31%</b>
<i>Net Sales ex FX<sup>1</sup></i>	\$207	49%	\$669	31%
<b>Adj. EBITDA</b>	<b>\$89</b>	<b>56%</b>	<b>\$286</b>	<b>34%</b>
<i>Adj. EBITDA ex FX<sup>1</sup></i>	\$88	54%	\$283	32%
<b>Adj. EBITDA Margin</b>	<b>43%</b>	<b>171 bps</b>	<b>43%</b>	<b>77 bps</b>
<i>Adj. EBITDA Margin ex FX<sup>1</sup></i>	43%	142 bps	42%	30 bps

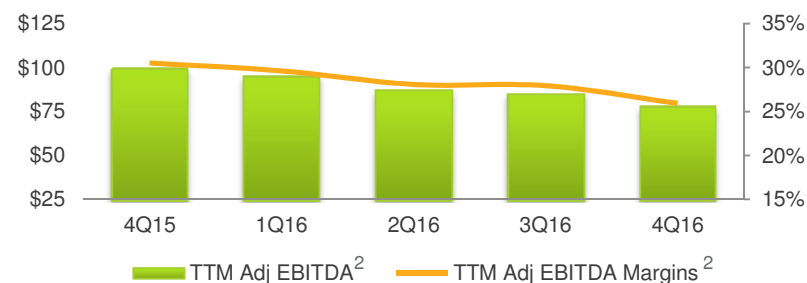
## PCS – 4<sup>th</sup> Qtr & FY Performance

(\$ in millions)	4Q	Δ 4Q	FY	Δ FY
	2016	2015	2016	2015
<b>Net Sales</b>	<b>\$70</b>	<b>(6%)</b>	<b>\$299</b>	<b>(8%)</b>
<i>Net Sales ex FX<sup>3</sup></i>	\$70	(7%)	\$299	(8%)
<b>Adj. EBITDA</b>	<b>\$13</b>	<b>(35%)</b>	<b>\$78</b>	<b>(22%)</b>
<i>Adj. EBITDA ex FX<sup>3</sup></i>	\$13	(37%)	\$76	(23%)
<b>Adj. EBITDA Margin</b>	<b>19%</b>	<b>(856) bps</b>	<b>26%</b>	<b>(458) bps</b>
<i>Adj. EBITDA Margin ex FX<sup>3</sup></i>	19%	(893) bps	26%	(494) bps

## Lithium - Historical Trend



## PCS - Historical Trend



<sup>1</sup> Non-GAAP measure. Favorable FX impact on 4Q Net Sales and Adj. EBITDA of \$1M and \$1M, respectively. Favorable / (Unfavorable) FX impact on FY Net Sales and Adj. EBITDA of (\$1M) and \$3M, respectively.

<sup>2</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

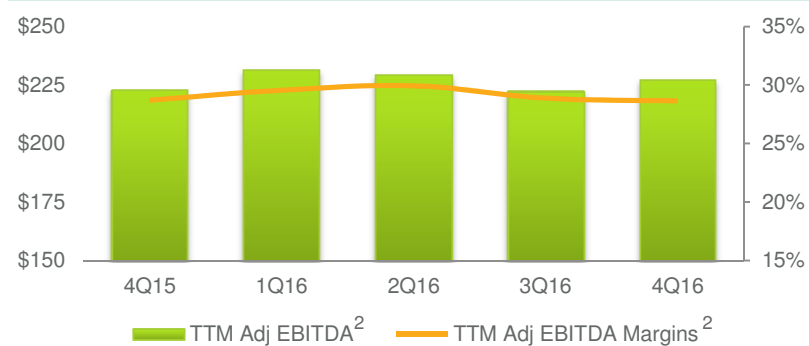
<sup>3</sup> Non-GAAP measure. Favorable FX impact on FY Adj. EBITDA of \$1M.

# Bromine Specialties

## 4<sup>th</sup> Qtr & Full Year Performance

(\$ in millions)	4Q 2016	Δ 4Q 2015	FY 2016	Δ FY 2015
<b>Net Sales</b>	<b>\$195</b>	<b>13%</b>	<b>\$792</b>	<b>2%</b>
<i>Net Sales ex FX<sup>1</sup></i>	\$193	13%	\$790	2%
<b>Adj. EBITDA</b>	<b>\$47</b>	<b>11%</b>	<b>\$227</b>	<b>2%</b>
<i>Adj. EBITDA ex FX<sup>1</sup></i>	\$46	9%	\$224	1%
<b>Adj. EBITDA Margin</b>	<b>24%</b>	<b>(49) bps</b>	<b>29%</b>	<b>(7) bps</b>
<i>Adj. EBITDA Margin ex FX<sup>1</sup></i>	24%	(89) bps	28%	(28) bps

## Historical Trend



## Performance Drivers

- Outperformance in 2016 was driven by incremental improvement in flame retardants and better than expected demand for clear brine fluids, as well as cost management and productivity measures within the business.
- Bromine Specialties performed better than expected in fourth quarter and full year 2016 with full year adjusted EBITDA up 2% versus the prior year, overcoming headwind from the loss of methyl bromide customer contract (approx. \$15M adjusted EBITDA in Q2 2015).

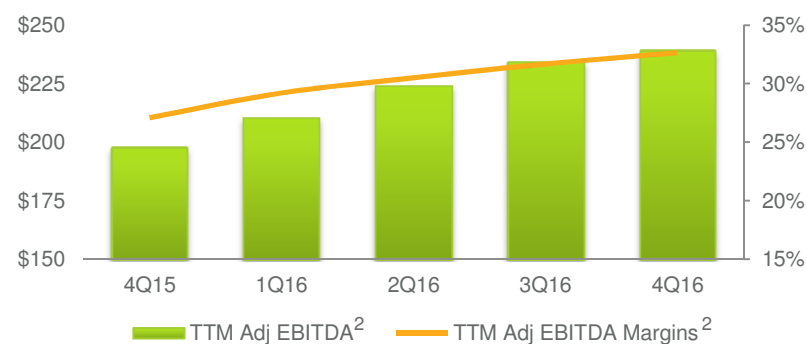
<sup>1</sup> Non-GAAP measure. Favorable FX impact on 4Q Net Sales and Adj. EBITDA of \$2M and \$1M, respectively.  
<sup>2</sup> Favorable FX impact on FY Net Sales and Adj. EBITDA of \$2M and \$3M, respectively.  
<sup>3</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

# Refining Solutions

## 4<sup>th</sup> Qtr & Full Year Performance

(\$ in millions)	4Q 2016	Δ 4Q 2015	FY 2016	Δ FY 2015
<b>Net Sales</b>	<b>\$193</b>	<b>(4%)</b>	<b>\$732</b>	<b>0%</b>
<i>Net Sales ex FX<sup>1</sup></i>	\$194	(3%)	\$735	1%
<b>Adj. EBITDA</b>	<b>\$57</b>	<b>9%</b>	<b>\$239</b>	<b>21%</b>
<i>Adj. EBITDA ex FX<sup>1</sup></i>	\$57	8%	\$239	21%
<b>Adj. EBITDA Margin</b>	<b>30%</b>	<b>341 bps</b>	<b>33%</b>	<b>554 bps</b>
<i>Adj. EBITDA Margin ex FX<sup>1</sup></i>	29%	315 bps	32%	536 bps

## Historical Trend



## Performance Drivers

- Heavy Oil Upgrading (FCC) extended its strong 2015 performance into 2016 as FCC demand remained at a high level. As expected, the business delivered full year 2016 results comparable to 2015.
- Clean Fuels Technologies (HPC) significantly exceeded initial expectations for 2016. Increased volumes and an improved product mix in CFT drove the overall GBU's full year adjusted EBITDA improvement. After a difficult 2015, refiners are trending toward more typical buying patterns, although the business is still working to get back to 2014 performance levels.

<sup>1</sup> Non-GAAP measure. Favorable / (unfavorable) FX impact on 4Q and FY Net Sales of (\$1M) and (\$3M), respectively.

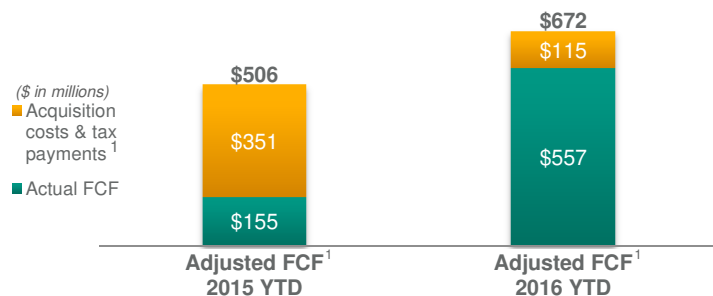
<sup>2</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix.



# Financial Performance

## Twelve Months Ended Dec 31

(\$ in millions)	2015	2016
<b>Net Cash from Operations</b>	<b>\$361</b>	<b>\$733</b>
Less: Capital Expenditures	(228)	(197)
Add Back: Pension Contributions	22	20
<b>Free Cash Flow<sup>1</sup></b>	<b>\$155</b>	<b>\$557</b>
Acquisition and integration related costs	146	85
Cash taxes on repatriation	108	20
Other cash adjustments	97	10
<b>Adjusted Free Cash Flow<sup>1</sup></b>	<b>\$506</b>	<b>\$672</b>



<sup>1</sup> Non-GAAP measures. Free Cash Flow and Adjusted Free Cash Flow include discontinued operations (Chemetall®) in the amount of \$203M and \$175M in FY 2015 and FY 2016, respectively. Free Cash Flow and Adjusted Free Cash Flow may not equal the sum of their components as shown due to rounding.

<sup>2</sup> Represents annual increase in dividend per share. Actual cash dividends paid increased 13% Y/Y.

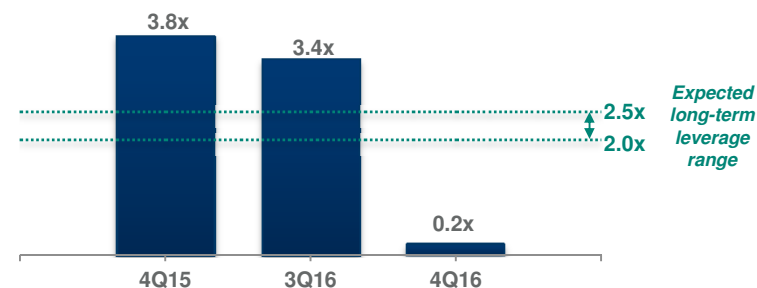
<sup>3</sup> Excludes JV debt not guaranteed by Company.

<sup>4</sup> Gross Debt to Adjusted EBITDA and Net Debt to Adjusted EBITDA ratios are based on the bank covenant definition. See appendix for reconciliations.

## Selected Financial Metrics

(\$ in millions)	(as of 12/31/2016)
<b>Dividends Paid:</b>	<b>\$135</b>
<b>Dividend Growth (Y/Y)<sup>2</sup>:</b>	<b>5%</b>
<b>Cash Balance:</b>	<b>\$2,270</b>
<b>Gross Debt<sup>3</sup>:</b>	<b>\$2,369</b>
<b>Gross Debt to Adj. EBITDA<sup>4</sup>:</b>	<b>3.1x</b>

## Net Debt to Adj. EBITDA<sup>4</sup>



# Full Year 2017 Business Guidance vs 2016

GBU	Division	Initial Outlook	Business Environment
Refining Solutions	Heavy Oil Upgrading	↔	<ul style="list-style-type: none"> <li>Strong demand for FCC catalysts continues into 2017</li> <li>Some negative impact in 1H17 from increased customer turnarounds and competitive trials</li> </ul>
	Clean Fuel Technologies	↑	<ul style="list-style-type: none"> <li>More typical buying patterns at refiners expected to continue into 2017, positioning the business for low single digit adj. EBITDA growth vs 2016</li> <li>Some additional improvement expected in 2017, although not at rate seen in 2016; driven by continued favorable demand and mix trends</li> </ul>
Bromine Specialties	Bromine Specialties	↔	<ul style="list-style-type: none"> <li>Full-year adj. EBITDA expected to be flat with prior year</li> <li>Modest demand growth in flame retardants and cost management offset by uncertain demand for clear brine fluids, cost pressures in certain raw materials, and continued weakness in ag intermediates</li> </ul>
Lithium and Advanced Materials	Lithium	↑	<ul style="list-style-type: none"> <li>Adj. EBITDA growth<sup>1</sup> &gt;20% driven by price improvement, volume contribution from La Negra 2 &amp; China</li> <li>Actively working to evaluate &amp; develop 'Wave 2' lithium resources (startups beyond FY2021)</li> <li>Lithium adj. EBITDA margins expected to remain above 40% despite additional \$60-70M of costs from royalty &amp; community payments in Chile and expenses related to 'Wave 2' resource evaluation</li> </ul>
	PCS / Curatives	↔	<ul style="list-style-type: none"> <li>Adj. EBITDA expected to be relatively flat vs 2016</li> <li>Additional headwinds from Sun Edison bankruptcy countered by productivity measures</li> </ul>

<sup>1</sup> Guidance reflects Tianqi option termination announced February 22<sup>nd</sup>, 2017.

 Better than 2016    
  Worse than 2016    
  Similar to 2016

# Full Year 2017 Guidance

## Lithium & Adv. Materials

Lithium adj. EBITDA<sup>2</sup> growth of >20%, PCS relatively flat

## Bromine Specialties

Adj. EBITDA<sup>2</sup> comparable to 2016

## Refining Solutions

Adj. EBITDA<sup>2</sup> growth in the low single digits vs 2016

	FY 2016 Actuals <sup>1</sup>		FY 2017 Guidance	
Net Sales	\$2.7B	▲	\$2.80 – 2.95B	→ <b>Net sales growth of 5 – 10%</b>
Adjusted EBITDA <sup>2,3</sup>	\$758M	▲	\$800 – 840M	→ <b>Adj EBITDA growth of 6 – 11%</b>
Adjusted EBITDA Margin <sup>2,3</sup>	28%		28 - 29%	
Adjusted Diluted EPS <sup>2,4</sup>	\$3.57	▲	\$4.00 – 4.25	→ <b>Adj Diluted EPS growth of 12 – 19%</b>
D&A	\$191M		\$175 – 195M	
Net Cash from Operations <sup>5,6</sup>	\$733M	▼	\$225 – 325M	
Capital Expenditures <sup>7</sup>	\$197M	▲	\$350 – 400M	
Adjusted Free Cash Flow <sup>5,6</sup>	\$672M	▼	\$200 – 300M	→ <b>Accelerating lithium investment to capture 50% of demand growth over the next several years, maximize production from our low-cost resources</b>

<sup>1</sup> FY 2016 actuals represent continuing operations only unless otherwise noted.

<sup>2</sup> Non-GAAP measure. See Appendix for Non-GAAP reconciliations of FY 2016 measures.

<sup>3</sup> Reflects EBITDA attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

<sup>4</sup> Reflects Net Income attributable to Albemarle Corporation, before discontinued operations and the special and non-operating pension and OPEB items.

<sup>5</sup> FY 2016 Net Cash from Operations and Adjusted Free Cash Flow include discontinued operations (Chemetal®). Free Cash Flow is a non-GAAP measure defined as Net Cash from Operations, add back pension and post-retirement contributions and subtract capital expenditures. Additionally, FY 2016 Free Cash Flow includes acquisition related cash expenses and cash taxes on repatriation of approximately \$115M which are excluded in Adjusted Free Cash Flow. See slide 17 for details.

<sup>6</sup> FY 2017 Net Cash from Operations guidance includes \$325-375M of expected one-time cash expenses and taxes, including premiums paid to extinguish debt, integration related cash expenses (*Jiangxi Jiangli*) and cash taxes on the sale of Chemetal® that are excluded from Adjusted Free Cash Flow guidance.

<sup>7</sup> FY 2016 Capital Expenditures includes ~\$19M related to discontinued operations (Chemetal®).

## Albemarle Investor Day – March 16, 2017

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Investors will receive an in-depth overview of our business strategy, operations and financial objectives. Speakers will include chairman, president & CEO **Luke Kissam**; executive vice president & CFO **Scott Tozier**; and Global Business Unit presidents **Raphael Crawford**, Bromine Specialties; **Silvio Ghyoot**, Refining Solutions; and **John Mitchell**, Lithium and Advanced Materials.

It's not too late to register - we hope you will join us!

### **Convene Conference Center**

730 Third Ave (Between 45th & 46th St.)  
New York City

Pre-registration is requested; event and webcast registration details are available under the 'Events & Presentations' section of our website at <http://investors.albemarle.com>

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