

# Fourth-Quarter Fiscal 2018 Earnings

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November 6, 2018



ashland.com / efficacy usability allure integrity profitability



## Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended. Ashland has identified some of these forward-looking statements with words such as “anticipates,” “believes,” “expects,” “estimates,” “is likely,” “predicts,” “projects,” “forecasts,” “objectives,” “may,” “will,” “should,” “plans” and “intends” and the negative of these words or other comparable terminology. Ashland may from time to time make forward-looking statements in its annual reports, quarterly reports and other filings with the SEC, news releases and other written and oral communications. These forward-looking statements are based on Ashland’s expectations and assumptions, as of the date such statements are made, regarding Ashland’s future operating performance and financial condition, as well as the economy and other future events or circumstances. These statements include, but may not be limited to, the statements under “Fiscal Year 2019 Outlook” on page 13 of the presentation, “Cost Reduction Targets” on page 14 of the presentation, “First-Quarter Fiscal 2019 Outlook” on page 15 of the presentation, Ashland’s assessment on its progress towards becoming a premier specialty chemicals company and its expectations regarding its ability to drive sales and earnings growth, realize future cost reductions and complete the anticipated divestiture of its Composites business and Marl BDO facility. Ashland’s expectations and assumptions include, without limitation, internal forecasts and analyses of current and future market conditions and trends, management plans and strategies, operating efficiencies and economic conditions (such as prices, supply and demand, cost of raw materials, and the ability to recover raw-material cost increases through price increases), and risks and uncertainties associated with the following: the program to eliminate certain existing corporate and Specialty Ingredients expenses (including the possibility that such cost eliminations may not occur or may take longer to implement than anticipated), the expected divestiture of its Composites segment and the Marl BDO facility, and related merchant I&S products (including, in each case, the possibility that a transaction may not occur or that, if a transaction does occur, Ashland may not realize the anticipated benefits from such transaction), the impact of acquisitions and/or divestitures Ashland has made or may make, including the acquisition of Pharmachem (including the possibility that Ashland may not realize the anticipated benefits from such transactions); Ashland’s substantial indebtedness (including the possibility that such indebtedness and related restrictive covenants may adversely affect Ashland’s future cash flows, results of operations, financial condition and its ability to repay debt); Ashland’s ability to generate sufficient cash to finance its stock repurchase plans; severe weather, natural disasters, cyber events and legal proceedings and claims (including product recalls, environmental and asbestos matters); and without limitation, risks and uncertainties affecting Ashland that are described in Ashland’s most recent Form 10-K (including Item 1A Risk Factors) filed with the SEC, which is available on Ashland’s website at <http://investor.ashland.com> or on the SEC’s website at <http://www.sec.gov>. Various risks and uncertainties may cause actual results to differ materially from those stated, projected or implied by any forward-looking statements. Ashland believes its expectations and assumptions are reasonable, but there can be no assurance that the expectations reflected herein will be achieved. Unless legally required, Ashland undertakes no obligation to update any forward-looking statements made in this news release whether as a result of new information, future events or otherwise.

## Regulation G: Adjusted Results

The information presented herein regarding certain unaudited adjusted results does not conform to generally accepted accounting principles in the United States (U.S. GAAP) and should not be construed as an alternative to the reported results determined in accordance with U.S. GAAP. Ashland has included this non-GAAP information to assist in understanding the operating performance of the company and its reportable segments. The non-GAAP information provided may not be consistent with the methodologies used by other companies. All non-GAAP information has been reconciled with reported U.S. GAAP results. Although Ashland provides forward-looking guidance for adjusted EBITDA, free cash flow and adjusted diluted earnings per share, Ashland is not reaffirming or providing forward-looking guidance for U.S. GAAP-reported financial measures or a reconciliation of forward-looking non-GAAP financial measures to the most directly comparable U.S. GAAP measure. Such reconciliations have not been included because Ashland is unable, without unreasonable efforts, to estimate and quantify the most directly comparable U.S. GAAP components, largely because predicting future operating results is subject to many factors not in Ashland’s control and not readily predictable and that are not part of Ashland’s routine operating activities, including various domestic and international economic, political, legislative, regulatory and legal factors.



## Important Information

In connection with the forthcoming solicitation of proxies from stockholders in respect of Ashland's 2019 Annual Meeting of Stockholders, Ashland will file with the Securities and Exchange Commission ("SEC") a proxy statement on Schedule 14A (the "proxy statement"), containing a form of white proxy card. BEFORE MAKING ANY VOTING DECISION, INVESTORS AND SECURITY HOLDERS ARE URGED TO READ ALL RELEVANT DOCUMENTS, INCLUDING ASHLAND'S PROXY STATEMENT AND ANY AMENDMENTS THERETO AND ACCOMPANYING WHITE PROXY CARD, FILED WITH OR FURNISHED TO THE SEC WHEN THEY BECOME AVAILABLE BECAUSE THEY CONTAIN, OR WILL CONTAIN, IMPORTANT INFORMATION ABOUT ASHLAND.

## Certain Information Regarding Participants

Ashland, its directors and certain of its executive officers, including William A. Wulfsohn, Brendan Cummins, William G. Dempsey, Jay V. Ihlenfeld, Susan L. Main, Jerome A. Peribere, Barry W. Perry, Mark C. Rohr, Janice J. Teal, Michael J. Ward and Kathleen Wilson-Thompson, will be participants in the solicitation of proxies from stockholders in respect of the 2019 Annual Meeting of Stockholders. Information regarding the ownership of the Company's directors and executive officers in the company by security holdings or otherwise is included in Ashland's Annual Report on Form 10-K for the year ended September 30, 2017, which was filed with the SEC on November 20, 2017, and its proxy statement for the 2018 Annual Meeting of Stockholders, which was filed with the SEC on December 6, 2017. To the extent holdings of Ashland securities have changed since the amounts printed in the proxy statement for the 2018 Annual Meeting, such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. Details concerning the nominees of Ashland's Board of Directors for election at the 2019 Annual Meeting will be included in the proxy statement when it is filed by Ashland with the SEC. Stockholders may obtain free copies of the proxy statement and other relevant documents that Ashland files with the SEC on Ashland's website at <http://investor.ashland.com> or from the SEC's website at <http://www.sec.gov>.



# Fourth Quarter Summary

## Ashland Global Holdings Inc.

# Adjusted Results Summary<sup>1</sup>

(\$ in millions) Preliminary	Fiscal Fourth Quarter Three months ended Sept. 30,		
	2018	2017	Change
Sales	\$ 956	\$ 880	9 %
Gross profit	\$ 283	\$ 266	6 %
Gross profit as a percent of sales	29.6 %	30.2 %	(60) bp
Selling, general and admin./R&D costs	\$ 181	\$ 184	(2) %
Operating income	\$ 104	\$ 84	24 %
Operating income as a percent of sales	10.9 %	9.5 %	140 bp
Depreciation and amortization	\$ 75	\$ 77	(3) %
Earnings before interest, taxes, depreciation and amortization (EBITDA)	\$ 179	\$ 161	11 %
EBITDA as a percent of sales	18.7 %	18.3 %	40 bp
Net interest expense	\$ 29	\$ 31	(6) %
Effective tax rate	16 %	6 %	1,000 bp
Income from continuing operations	\$ 62	\$ 50	24 %
Diluted share count (million shares)	64	64	- %
Earnings per share (EPS)	\$ 0.97	\$ 0.78	24 %

## Highlights

- Sales up 9% with no acquisitions/divestitures impact and including a -1 percentage point (ppt) impact from currency
- Reported net income was \$9 million, compared to a loss of \$58 million last year; income from continuing operations was \$11 million or \$0.17 per diluted share<sup>2</sup>
- EBITDA increased to \$179 million vs. \$161 million prior year
- EPS increased to \$0.97 vs. \$0.78 prior year
- Excluding intangible amortization, EPS would have been \$0.28 greater

## Key Drivers

- Strong sales growth for all three operating segments
- Selling, general & administrative (SG&A) expense as % of sales decreased by 210 basis points (bps)
- 16% effective tax rate

<sup>1</sup> All figures are presented on an adjusted basis except Sales, Net interest expense and Diluted share count (million shares). Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of net income to EBITDA and adjusted EBITDA, operating income to adjusted operating income, income (loss) from continuing operations to adjusted income from continuing operations and diluted earnings per share to adjusted diluted earnings per share.

<sup>2</sup> Unless otherwise noted, earnings are reported on a diluted share basis.

## Specialty Ingredients

# Adjusted Results Summary<sup>1</sup>

(\$ in millions) Preliminary	Fiscal Fourth Quarter Three months ended Sept. 30,		
	2018	2017	Change
Sales	\$ 636	\$ 598	6 %
Gross profit	\$ 225	\$ 214	5 %
Gross profit as a percent of sales	35.4 %	35.8 %	(40) bp
Selling, general and admin./R&D costs	\$ 129	\$ 136	(5) %
Operating income	\$ 97	\$ 78	24 %
Operating income as a percent of sales	15.3 %	13.0 %	230 bp
Depreciation and amortization	\$ 63	\$ 63	- %
Earnings before interest, taxes, depreciation and amortization (EBITDA)	\$ 160	\$ 141	13 %
EBITDA as a percent of sales	25.2 %	23.6 %	160 bp

## Highlights

- Sales up 6% with no acquisitions / divestitures impact and including a -1 ppt impact from currency
- EBITDA increased to \$160 million, a 13% increase versus prior year
- EBITDA margin increased 160 bps to 25.2%

## Key Drivers

- Strong customer demand and focus on enhanced mix of our innovative, differentiated products
- Asset utilization initiatives and production volumes leading to favorable cost absorption
- Price vs. cost – improved pricing more than offset by higher raw material costs
- SG&A down \$7 million and nearly 250 bps as % of sales due to continued cost discipline

## Specialty Ingredients

# Sales Trends by End Market<sup>1</sup>

(\$ in millions) Preliminary	Fiscal Fourth Quarter			YTD Change
	Three months ended Sept. 30, 2018	2017	Change	
Personal care	\$146	\$146	- %	4 %
Pharma	98	88	11 %	11 %
Adhesives	91	85	7 %	5 %
Coatings	85	84	1 %	5 %
Construction, Energy, PS <sup>1</sup>	95	82	16 %	9 %
Nutrition & Other	49	45	9 %	8 %
Pharmachem	72	68	6 %	NM %
Total sales	\$636	\$598	6 %	11 %

## End Market Commentary

- Strong overall organic sales growth of 6%
- Within Personal care, robust biofunctional ingredients growth offset by lower oral care sales
- Recently added cellulosic excipient capacity and new products contributing to double-digit growth in Pharma
- Healthy Adhesives pricing and product mix improvements
- Soft Coatings demand in China was more than offset by growth in other regions
- Asset utilization leading to targeted commercial wins in Construction, Energy and Performance Specialties
- Mid-single digit sales growth within Pharmachem; EBITDA margins before corporate allocations of 33%
- Currency negatively impacted sales growth by 1 ppt during the fourth quarter<sup>2</sup>

<sup>1</sup> Performance Specialties

<sup>2</sup> Average USD / EUR of \$1.16 in current quarter compared to \$1.17 in prior-year period.

## Composites

# Adjusted Results Summary<sup>1</sup>

(\$ in millions) Preliminary	Fiscal Fourth Quarter		
	Three months ended Sept. 30,		
	2018	2017	Change
Sales	\$ 237	\$ 219	8 %
Gross profit	\$ 42	\$ 41	2 %
Gross profit as a percent of sales	17.5 %	18.8 %	(130) bp
Selling, general and admin./R&D costs	\$ 27	\$ 25	8 %
Operating income	\$ 14	\$ 17	(18) %
Operating income as a percent of sales	5.9 %	7.8 %	(190) bp
Depreciation and amortization	\$ 6	\$ 6	- %
Earnings before interest, taxes, depreciation and amortization (EBITDA)	\$ 20	\$ 23	(13) %
EBITDA as a percent of sales	8.4 %	10.5 %	(210) bp

## Highlights

- Sales up 8% including a -2 ppts impact from currency
- EBITDA of \$20 million

## Key Drivers

- Sales growth led by a strong quarter in North America
- Pricing in excess of raw-material cost inflation
- SG&A as a % of sales consistent with the prior-year period



## Intermediates & Solvents

# Adjusted Results Summary<sup>1</sup>

(\$ in millions) Preliminary	Fiscal Fourth Quarter Three months ended Sept. 30,		
	2018	2017	Change
Sales	\$ 83	\$ 63	32 %
Gross profit	\$ 16	\$ 11	45 %
Gross profit as a percent of sales	19.6 %	17.0 %	260 bp
Selling, general and admin./R&D costs	\$ 8	\$ 8	- %
Operating income	\$ 9	\$ 3	200 %
Operating income as a percent of sales	10.8 %	4.8 %	600 bp
Depreciation and amortization	\$ 6	\$ 7	(14) %
Earnings before interest, taxes, depreciation and amortization (EBITDA)	\$ 15	\$ 10	50 %
EBITDA as a percent of sales	18.1 %	15.9 %	220 bp

### Highlights

- Sales up 32%
- EBITDA increased to \$15 million
- EBITDA margin increased 220 bps to 18.1%

### Key Drivers

- Strong operational performance
- Execution of price increases for the 9<sup>th</sup> consecutive quarter drove expanded margins versus prior year
- Global demand for butanediol (BDO) and derivatives remains healthy

# Fiscal Year Summary

# Fiscal Year 2018 Summary<sup>1</sup>

(\$ in millions) Preliminary	Fiscal Year		
	Twelve months ended Sept. 30,		
	2018	2017	Change
Sales			
Specialty Ingredients	\$ 2,470	\$ 2,216	11 %
Composites	942	779	21 %
Intermediates & Solvents	331	265	25 %
Total	\$ 3,743	\$ 3,260	15 %
Adjusted EBITDA			
Specialty Ingredients	\$ 574	\$ 493	16 %
Composites	95	89	7 %
Intermediates & Solvents	61	26	135 %
Unallocated	(47)	(38)	- %
Total	\$ 683	\$ 570	20 %
Adjusted EPS	\$ 3.58	\$ 2.44	47 %

## Full Year Highlights

- Sales up 15% to \$3.7 billion
- Double-digit sales growth in all three segments
- Adjusted EBITDA up 20% to \$683 million
- All three segments generated Adjusted EBITDA within or above the outlook ranges presented at the beginning of the fiscal year
- Adjusted EPS up 47% to \$3.58
- Operating cash flow of \$344 million
- Capital expenditures of \$185 million
- Free cash flow<sup>2</sup> (FCF) of \$159 million, inclusive of \$39 million of separation and restructuring-related costs
- Announced planned divestiture of Composites and BDO facility in Marl, Germany
- Announced \$120 million cost reduction program

<sup>1</sup> Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of net income to EBITDA and adjusted EBITDA and diluted earnings per share to adjusted diluted earnings per share.

<sup>2</sup> Non-GAAP measure. Definition of free cash flow: operating cash flow less capital expenditures and other items Ashland has deemed non-operational (if applicable).

# Outlook Summary

# Fiscal Year 2019 Outlook

## Highlights

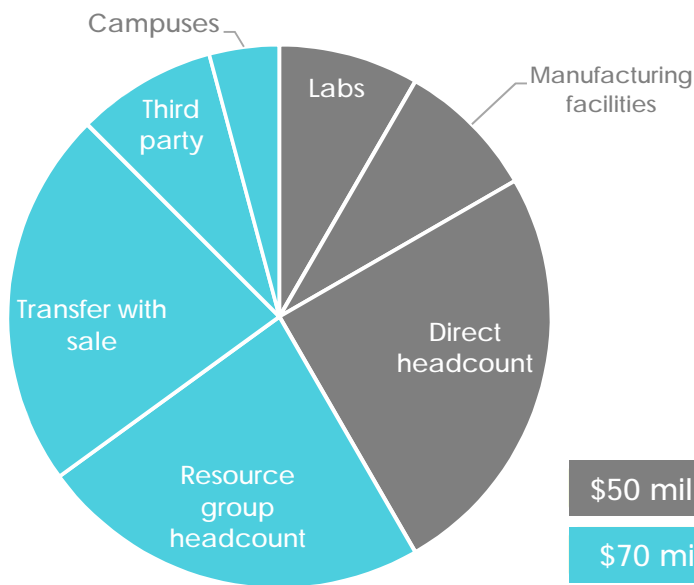
- Outlook provided on a current-operations basis
  - Update to be provided following a Composites/Marl divestiture announcement
- Growth driven by:
  - ~2 - 3% Specialty Ingredients sales growth
  - Mid-single-digit growth in Specialty Ingredients' Adjusted EBITDA plus \$20 million of savings from the ongoing cost reduction program
  - Assumes USD/EUR of \$1.15 for the full year<sup>1</sup>
  - Based on an effective tax rate in the range of 15 - 17% for the year
- Cash tax rate in the range of 15 - 17%
- Expected free cash flow of ~\$230 million, inclusive of an estimated \$40 million of separation and restructuring-related costs

Outlook	
Adjusted EBITDA	
- Specialty Ingredients	\$610 - \$635 million
- Composites	\$95 - \$105 million
- Intermediates & Solvents	\$55 - \$65 million
- Unallocated and Other	(\$40 - \$50 million)
Key Operating Metrics	
- Adj. earnings per share (EPS)	\$4.20 - \$4.40
- Free cash flow	~\$230 million
Corporate Items	
- Depreciation & amortization	~\$285 million
- Interest expense	\$115 - \$125 million
- Effective tax rate	15 - 17%
- Capital expenditures	~\$200 million
- Diluted share count	~64 million

# Cost Reduction Targets

As presented on July 31, 2018

## \$120 million cost savings components<sup>1</sup>



## Expected Timing

- ~\$20 million run rate<sup>2</sup> by 9/30/18
- ~\$50 million run rate<sup>2</sup> by 12/31/18
- ~\$60 - \$70 million realized savings in FY2019
- ~\$20 million realized savings in Specialty Ingredients in FY2019
- ~\$120 million run rate<sup>2</sup> by 12/31/19

\$50 million Specialty Ingredients reduction

\$70 million of transferred / stranded costs

On track to achieve all cost reduction targets

# First-Quarter Fiscal 2019 Outlook

## Highlights

- Expect Q1 adjusted EPS in the range of \$0.55 - \$0.65 vs. \$0.42 prior year<sup>1</sup>
- Outlook assumes effective tax rate of 16% vs. 18% prior year
- Outlook provided on a current-operations basis
  - Update to be provided following a Composites/Marl divestiture announcement

## Key Drivers

- Continued strong year-over-year EBITDA growth in Specialty Ingredients
  - Inclusive of normal December-quarter seasonality patterns
- Composites and I&S contribution consistent with recent results
- Expected divestiture of Composites and Marl BDO facility remains on track

<sup>1</sup> Non-GAAP measure. Appendix C reconciles reported adjusted amounts to amounts reported under GAAP, including reconciliations of diluted earnings per share to adjusted diluted earnings per share. Forecasted information is not reconciled to applicable US GAAP captions.

# Appendix A: Key Items and Balance Sheet



## Fourth Fiscal Quarter – Continuing Operations

# Key Items Affecting Income

(\$ in millions, except EPS) Preliminary					Operating Income			Total		
2018	Specialty Ingredients	Composites	I&S	Unallocated and Other	Pre-tax	After-tax	After-tax earnings per Share			
Restructuring, separation and other costs	\$ (3)			\$ (53)	\$ (56)	\$ (49)	\$ (0.77)			
Asset impairments	(2)			(14)	(16)	(11)	(0.17)			
Tax indemnity expense				(5)	(5)	(4)	(0.05)			
Gain on pension and OPEB				12	12	10	0.16			
Tax specific key items					-	3	0.03			
Total	\$ (5)			\$ (60)	\$ (65)	\$ (51)	\$ (0.80)			
2017										
Restructuring, separation and other costs	\$ (5)			\$ (18)	\$ (23)	\$ (10)	\$ (0.16)			
Unplanned plant shutdowns	(6)		\$ (7)		(13)	(12)	(0.18)			
Inventory fair value adjustment	(6)				(6)	(4)	(0.06)			
Loss on pension and OPEB				(8)	(8)	(6)	(0.09)			
Tax specific key items					-	(71)	(1.13)			
Total	\$ (17)		\$ (7)	\$ (26)	\$ (50)	\$ (103)	\$ (1.62)			

# Liquidity and Net Debt

(\$ in millions)

Liquidity					
Cash					\$ 294
Revolver and A/R facility availability					754
Liquidity					\$ 1,048

Debt	Expiration	Interest		Moody's	S&P	
		Rate				
4.750% senior notes, par \$1,086	08/2022	4.750%		Ba3	BB-	\$ 1,083
Term Loan B <sup>1</sup>	05/2024	L+175		Ba1	BB+	593
6.875% senior notes, par \$375	05/2043	6.875%		Ba3	BB-	376
Term Loan A-2 <sup>2</sup>	05/2022	L+175		Ba1	BB+	195
European A/R facility drawn <sup>3</sup>	07/2020	CP+70				109
U.S. A/R facility drawn <sup>4</sup>	03/2020	L+75/CP+60				86
6.5% debentures, par \$100	06/2029	6.500%		B2	BB	52
Revolver drawn <sup>5</sup>	05/2022	L + 175		Ba1	BB+	25
Other debt						10
Total debt				Ba2 / Stable	BB / Stable	\$ 2,529
Cash						\$ 294
Net debt (cash)						\$ 2,235

<sup>1</sup> The Term Loan B has an amortizing principal, with complete repayment in 2024.

<sup>2</sup> The Term Loan A-2 has an amortizing principal, with complete repayment in 2022.

<sup>3</sup> Ashland has a multi-currency European AR securitization facility with maximum borrowing capacity of €115 million; September 30 capacity of €10 million.

<sup>4</sup> Ashland has a U.S. AR securitization facility with maximum borrowing capacity of \$115 million; September 30 capacity of \$29 million.

<sup>5</sup> Ashland's \$800 million revolving facility, including \$50 million used for letters of credit; September 30 capacity of \$725 million.



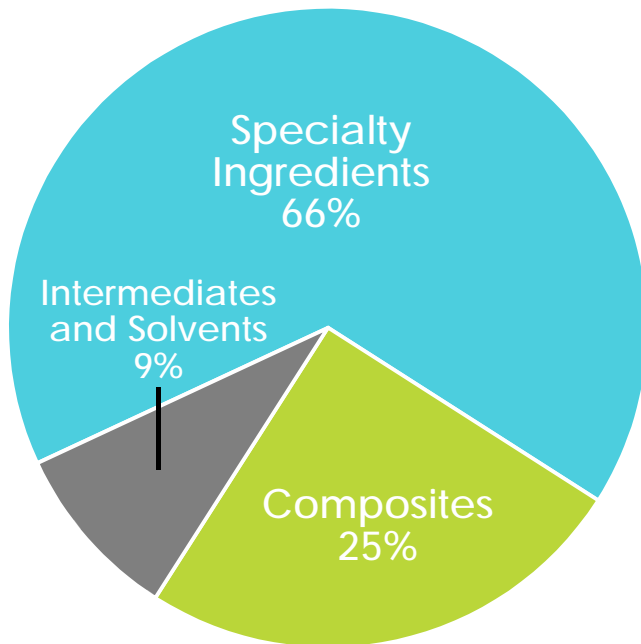
# Appendix B: Business Profiles

12 Months Ended September 30, 2018

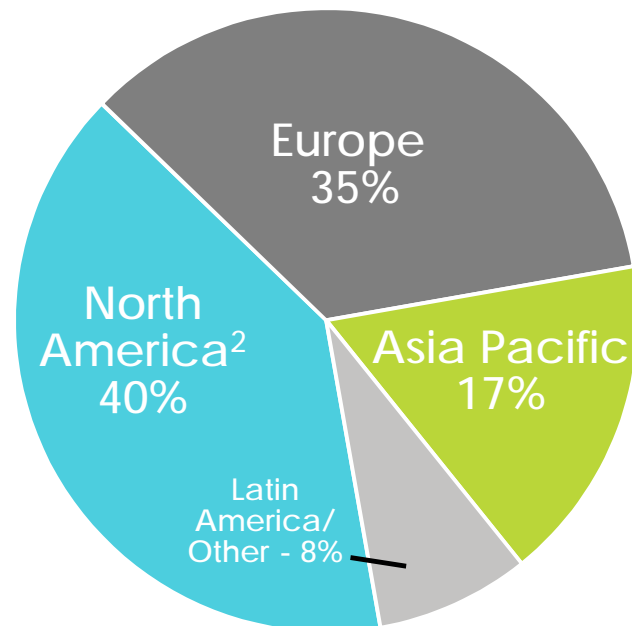
# Corporate Profile

Sales<sup>1</sup> - \$3.7 Billion

By business unit



By geography

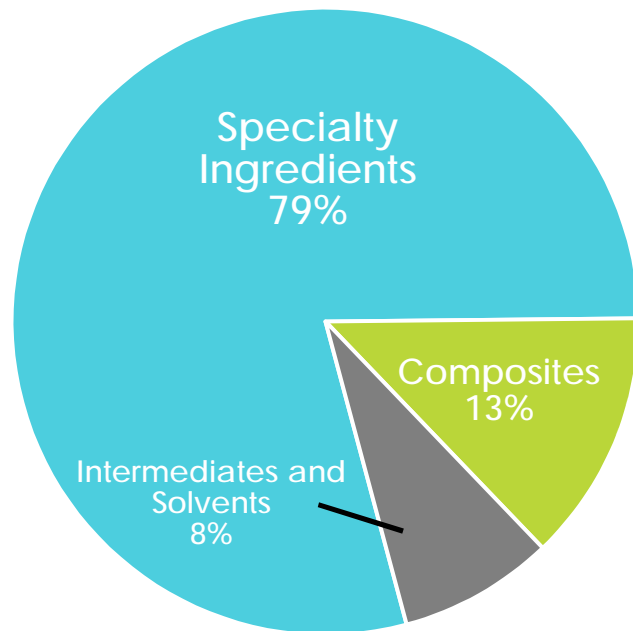


<sup>1</sup> For 12 months ended September 30, 2018.

<sup>2</sup> Ashland includes only U.S. and Canada in its North America designation.

# Corporate Profile

Adjusted EBITDA<sup>1</sup> - \$683 Million



NYSE Ticker Symbol: ASH

Total Employees: ~6,000

Outside North America ~45%

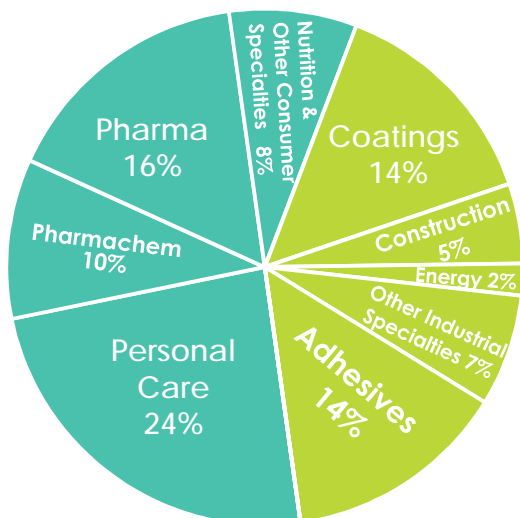
Number of Countries  
in Which Ashland  
Has Sales: More  
than 100

<sup>1</sup> For 12 months ended September 30, 2018. Non-GAAP measure. Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of operating income to adjusted EBITDA.

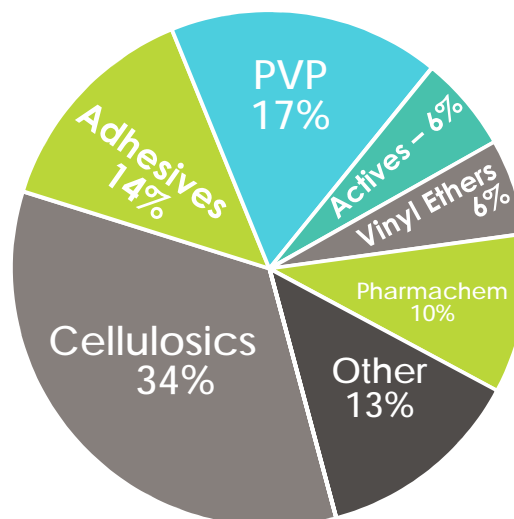
# Specialty Ingredients

A global leader of cellulose ethers, vinyl pyrrolidones and biofunctionals

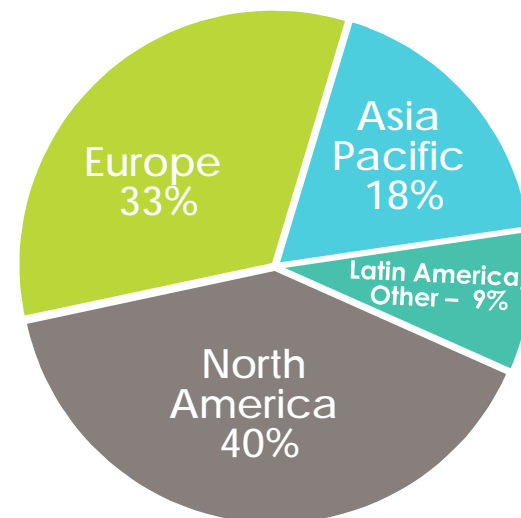
Sales  
by Market<sup>2</sup>



Sales  
by Product



Sales  
by Geography



For 12 Months Ended September 30, 2018

Sales: \$2.5 billion

Adjusted EBITDA: \$574 million<sup>1</sup>

Adjusted EBITDA Margin: 23.2%<sup>1</sup>

<sup>1</sup> Non-GAAP measure. Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of operating income to adjusted EBITDA.

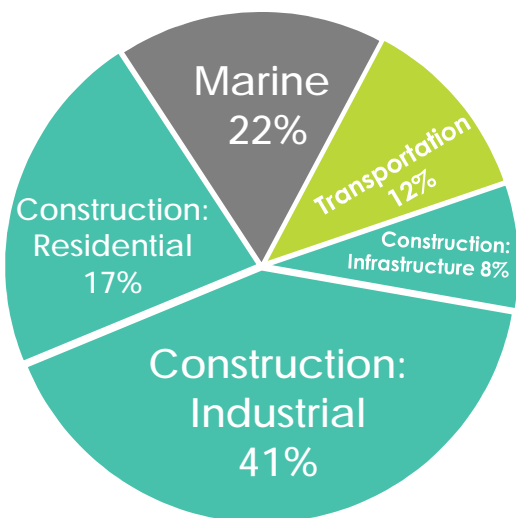
<sup>2</sup> Within the Sales by Market chart above, Industrial Specialties are presented in green and Consumer Specialties are presented in blue.



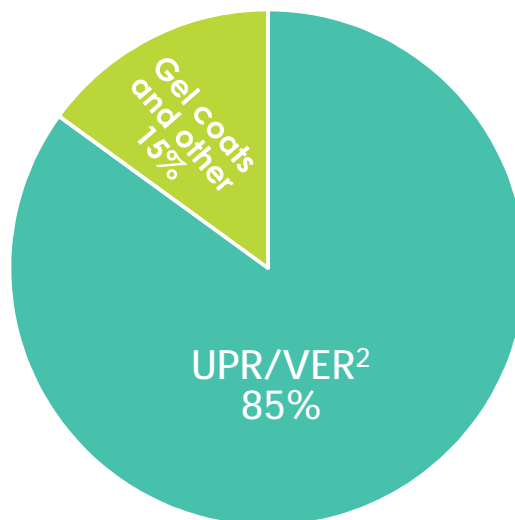
# Composites

A global leader in unsaturated polyester resins, vinyl ester resins and gel coats

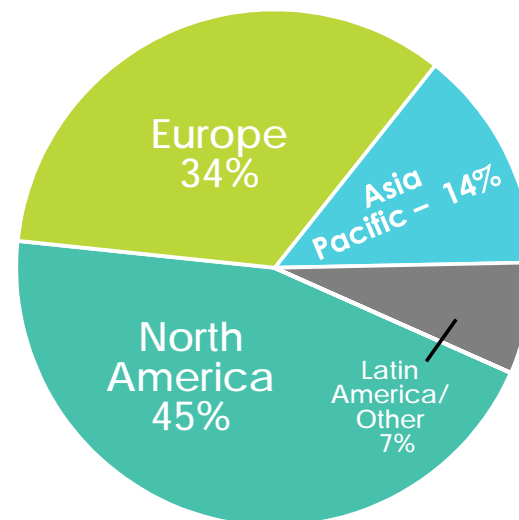
Sales  
by Market



Sales  
by Product



Sales  
by Geography



For 12 Months Ended September 30, 2018

Sales: \$942 million

Adjusted EBITDA: \$95 million<sup>1</sup>

Adjusted EBITDA Margin: 10.1%<sup>1</sup>

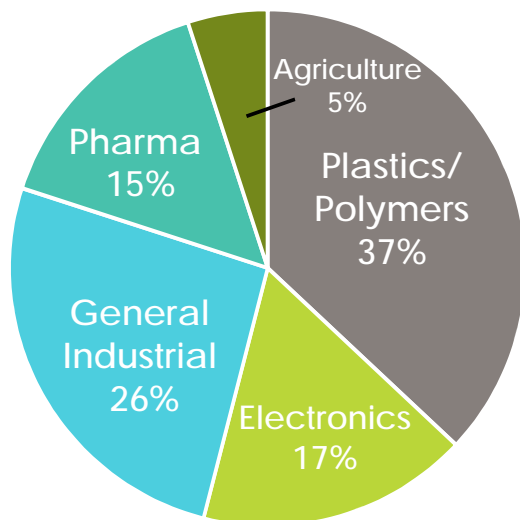
<sup>1</sup> Non-GAAP measure. Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of operating income to adjusted EBITDA.

<sup>2</sup> UPR stands for unsaturated polyester resins and VER stands for vinyl ester resins.

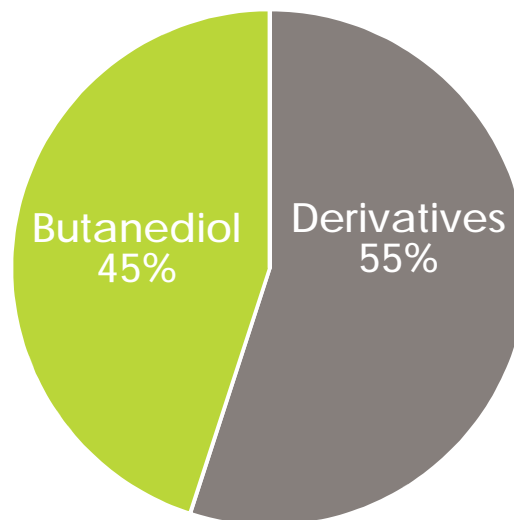
# Intermediates and Solvents

A global leader in butanediol and related derivatives

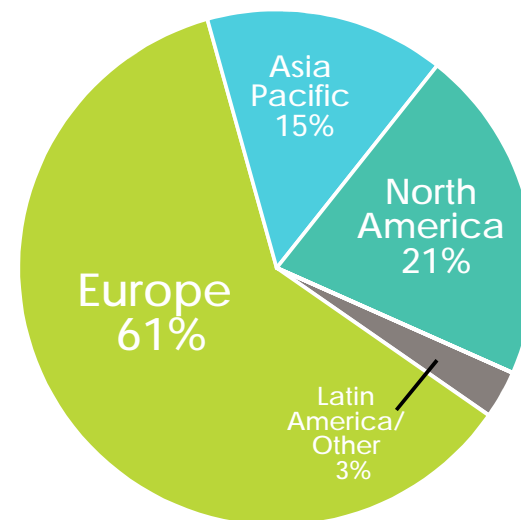
Sales  
by Application



Sales  
by Product



Sales  
by Geography



For 12 Months Ended September 30, 2018

Sales: \$331 million

Adjusted EBITDA: \$61 million<sup>1</sup>

Adjusted EBITDA Margin: 18.4%<sup>1</sup>



# Appendix C: Non-GAAP Reconciliation<sup>1</sup>

- <sup>1</sup> Although Ashland provides forward looking guidance for adjusted EBITDA in this presentation, Ashland is not reaffirming or providing forward-looking guidance for U.S. GAAP reported financial measures or a reconciliation of forward-looking non-GAAP financial measures to the most directly comparable U.S. GAAP measure because it is unable to predict with reasonable certainty the ultimate outcome of certain significant items without unreasonable effort.



# Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Reconciliation of Non-GAAP Data

for 12 Months Ended September 30, 2018

(\$ millions, except percentages)

Sales <sup>1</sup>	Q4 18	Q3 18	Q2 18	Q1 18	Total	
Specialty Ingredients	636	638	646	550	2,470	
Composites	237	250	238	218	942	
Intermediates and Solvents	83	83	90	74	331	
Total	956	971	974	842	3,743	
						Adjusted EBITDA Margin
Adjusted EBITDA <sup>1</sup>	Q4 18	Q3 18	Q2 18	Q1 18	Total	
Specialty Ingredients	160	155	153	105	574	23.2%
Composites	20	28	25	23	95	10.1%
Intermediates and Solvents	15	17	12	16	61	18.4%
Unallocated	(16)	(11)	(11)	(8)	(47)	
Total	179	189	179	136	683	

<sup>1</sup> Quarterly totals may not sum to actual results due to quarterly rounding conventions. Calculation of adjusted EBITDA for each quarter has been reconciled within certain financial filings with the SEC and posted on Ashland's website for each reportable segment.



Ashland Global Holdings Inc. and Consolidated Subsidiaries

# Segment Components of Key Items for Applicable Income Statement Captions

for 3 Months Ended September 30, 2018

(\$ millions)

	Specialty Ingredients	Composites	Intermediates and Solvents	Unallocated & Other	Total
OPERATING INCOME (LOSS)					
Operating key items:					
Restructuring, separation and other costs	\$ (3)	\$ -	\$ -	\$ (53)	\$ (56)
Asset impairments	(2)	-	-	(14)	(16)
Tax indemnity expense	-	-	-	(5)	(5)
All other operating income (loss)	<u>97</u>	<u>14</u>	<u>9</u>	<u>(16)</u>	<u>104</u>
Operating income (loss)	92	14	9	(88)	27
NET INTEREST AND OTHER FINANCING EXPENSE				29	29
OTHER NET PERIODIC BENEFIT INCOME					
Key items				(12)	(12)
All other net periodic benefit income				-	-
INCOME TAX EXPENSE (BENEFIT)					
Tax effect of key items <sup>1</sup>				(11)	(11)
Tax specific key items <sup>2</sup>				(3)	(3)
All other income tax expense				<u>13</u>	<u>13</u>
INCOME (LOSS) FROM CONTINUING OPERATIONS	<u>\$ 92</u>	<u>\$ 14</u>	<u>\$ 9</u>	<u>\$ (104)</u>	<u>\$ 11</u>

<sup>1</sup> Represents the tax effect of the key items that are previously identified above.

<sup>2</sup> Represents key items resulting from tax specific financial transactions, tax law changes or other matters that fall within the definition of tax specific key items.



Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Segment Components of Key Items for Applicable Income Statement Captions

for 3 Months Ended September 30, 2017

(\$ millions)

	Specialty Ingredients	Composites	Intermediates and Solvents	Unallocated & Other	Total
OPERATING INCOME (LOSS)					
Operating key items:					
Restructuring, separation and other costs	\$ (5)	\$ -	\$ -	\$ (18)	\$ (23)
Unplanned plant shutdowns	(6)	-	(7)	-	(13)
Inventory fair value adjustment	(6)	-	-	-	(6)
All other operating income (loss)	78	17	3	(14)	84
Operating income (loss)	61	17	(4)	(32)	42
NET INTEREST AND OTHER FINANCING EXPENSE				31	31
OTHER NET PERIODIC BENEFIT COSTS					
Key items				8	8
All other net periodic benefit costs				-	-
INCOME TAX EXPENSE (BENEFIT)					
Tax effect of key items <sup>1</sup>				(18)	(18)
Tax specific key items <sup>2</sup>				71	71
All other income tax expense				3	3
				56	56
INCOME (LOSS) FROM CONTINUING OPERATIONS	\$ 61	\$ 17	\$ (4)	\$ (127)	\$ (53)

<sup>1</sup> Represents the tax effect of the key items that are previously identified above.

<sup>2</sup> Represents key items resulting from tax specific financial transactions, tax law changes or other matters that fall within the definition of tax specific key items.



Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Reconciliation of Non-GAAP Data – Free Cash Flow and Adjusted Operating Income

for 3 Months Ended September 30, 2018 and 2017

(\$ millions)

	Three months ended September 30	
	2018	2017
Free cash flows <sup>1</sup>		
Total cash flows provided by operating activities from continuing operations	\$ 214	\$ 142
Adjustments:		
Additions to property, plant and equipment	(83)	(73)
Free cash flows	<u>\$ 131</u>	<u>\$ 69</u>

	Three months ended September 30	
	2018	2017
Adjusted operating income		
Operating income (as reported)	\$ 27	\$ 42
Key items, before tax:		
Restructuring, separation and other costs	56	23
Asset impairments	16	-
Tax indemnity expense	5	-
Unplanned plant shutdowns	-	13
Inventory fair value adjustment	-	6
Adjusted operating income (non-GAAP)	<u>\$ 104</u>	<u>\$ 84</u>

<sup>1</sup> Free cash flow is defined as cash flows provided (used) by operating activities less additions to property, plant and equipment and other items Ashland has deemed non-operational (if applicable).



Ashland Global Holdings Inc.

## Reconciliation of Non-GAAP Data – Adjusted EBITDA for 3 Months Ended September 30, 2018 and 2017

(\$ millions)

	Three months ended September 30	
	2018	2017
Adjusted EBITDA - Ashland Global Holdings Inc.		
Net income (loss)	\$ 9	\$ (58)
Income tax expense (benefit)	(1)	56
Net interest and other financing expense	29	31
Depreciation and amortization <sup>1</sup>	75	77
EBITDA	112	106
Loss from discontinued operations (net of taxes)	2	5
Loss (gain) on pension and other postretirement plan remeasurements	(12)	8
Operating key items	77	42
Adjusted EBITDA	<u>\$ 179</u>	<u>\$ 161</u>

<sup>1</sup> Depreciation and amortization excludes accelerated depreciation of \$1 million and \$6 million for the three months ended September 30, 2018 and 2017, respectively.

## Specialty Ingredients, Composites, Intermediates and Solvents

# Reconciliation of Non-GAAP Data – Adjusted EBITDA

### for 3 Months Ended September 30, 2018 and 2017

(\$ millions)

	Three months ended September 30	
	2018	2017
Adjusted EBITDA - Specialty Ingredients		
Operating income	\$ 92	\$ 61
Add:		
Depreciation and amortization <sup>1</sup>	63	63
Operating key items	5	17
Adjusted EBITDA	<u>\$ 160</u>	<u>\$ 141</u>
Adjusted EBITDA - Composites		
Operating income	\$ 14	\$ 17
Add:		
Depreciation and amortization	6	6
Operating key items	-	-
Adjusted EBITDA	<u>\$ 20</u>	<u>\$ 23</u>
Adjusted EBITDA - Intermediates and Solvents		
Operating income (loss)	\$ 9	\$ (4)
Add:		
Depreciation and amortization	6	7
Operating key items	-	7
Adjusted EBITDA	<u>\$ 15</u>	<u>\$ 10</u>

<sup>1</sup> Depreciation and amortization excludes accelerated depreciation of \$1 million and \$3 million for Specialty Ingredients for the three months ended September 30, 2018 and 2017, respectively.

# Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Reconciliation of Non-GAAP Data – Adjusted Income from Continuing Operations

### for 3 Months Ended September 30, 2018 and 2017

(\$ millions)

	Three months ended September 30	
	2018	2017
Income (loss) from continuing operations (as reported)	\$ 11	\$ (53)
Key items, before tax:		
Restructuring, separation and other costs	56	23
Asset impairments	16	-
Tax indemnity expense	5	-
Loss (gain) on pension and other postretirement plan remeasurements	(12)	8
Unplanned plant shutdowns	-	13
Inventory fair value adjustment	-	6
Key items, before tax:	65	50
Tax effect of key items <sup>1</sup>	(11)	(18)
Key items, after tax	54	32
Tax specific key items:		
Deferred tax rate changes	(9)	-
One-time transition tax	(15)	-
Uncertain tax positions	(26)	-
Restructuring and separation activity	36	5
Other tax reform	11	-
Valuation allowances	-	(21)
Foreign dividends	-	87
Tax specific key items <sup>2</sup>	(3)	71
Total key items	51	103
Adjusted income from continuing operations (non-GAAP)	\$ 62	\$ 50

<sup>1</sup> Represents the tax effect of the key items that are previously identified above.

<sup>2</sup> Represents key items resulting from tax specific financial transactions, tax law changes or other matters that fall within the definition of tax specific key items. These tax specific key items included the following:

- Deferred tax rate changes: Includes the impact from the remeasurement of Ashland's domestic deferred tax balances resulting from the enactment of the Tax Cuts and Jobs Act (Tax Act) as well as the impact from rate changes for other jurisdictions enacted during 2018.
- One-time transition tax: Includes the one-time transition tax expense resulting from the enactment of the Tax Act during 2018.
- Uncertain tax positions: Includes the impact from the settlement of uncertain tax positions with various tax authorities during 2018.
- Restructuring and separation activity: Includes the impact from company-wide restructuring activities during 2018 and the separation of Valvoline during 2017. These adjustments related to various tax impacts including state tax costs, foreign tax costs and other tax account adjustments.
- Other tax reform: Includes the impact of other items related to the Tax Act and other tax law changes enacted during 2018. These adjustments include the impact from the deductibility of compensation items and miscellaneous state tax items.
- Valuation allowances: Includes the impact from net operating loss and foreign tax credit valuation allowances during 2018 and 2017.
- Foreign dividends: Includes the impact from a significant deemed dividend inclusion in the U.S. during 2017. This deemed dividend transaction allowed Ashland to utilize foreign tax credit carryforwards which may have otherwise expired. This transaction was driven in part by projected changes to Ashland's business and tax profile as a result of the Valvoline separation.





# Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Reconciliation of Non-GAAP Data – Adjusted Diluted EPS from Continuing Operations

### for 3 Months Ended September 30, 2018 and 2017

	Three months ended September 30	
	2018	2017
Diluted EPS from continuing operations (as reported)	\$ 0.17	\$ (0.84)
Key items, before tax:		
Restructuring, separation and other costs	0.88	0.35
Asset impairments	0.25	-
Tax indemnity expense	0.08	-
Loss (gain) on pension and other postretirement plan remeasurements	(0.20)	0.13
Unplanned plant shutdowns	-	0.21
Inventory fair value adjustment	-	0.09
Key items, before tax	1.01	0.78
Tax effect of key items <sup>1</sup>	(0.18)	(0.29)
Key items, after tax	0.83	0.49
Tax specific key items:		
Deferred tax rate changes	(0.22)	-
One-time transition tax	(0.14)	-
Uncertain tax positions	(0.40)	-
Restructuring and separation activity	0.56	0.08
Other tax reform	0.17	-
Valuation allowances	-	(0.32)
Foreign dividends	-	1.37
Tax specific key items <sup>2</sup>	(0.03)	1.13
Total key items	0.80	1.62
Adjusted diluted EPS from continuing operations (non-GAAP)	\$ 0.97	\$ 0.78

<sup>1</sup> Represents the tax effect of the key items that are previously identified above.

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- Deferred tax rate changes: Includes the impact from the remeasurement of Ashland's domestic deferred tax balances resulting from the enactment of the Tax Cuts and Jobs Act (Tax Act) as well as the impact from rate changes for other jurisdictions enacted during 2018.
- One-time transition tax: Includes the one-time transition tax expense resulting from the enactment of the Tax Act during 2018.
- Uncertain tax positions: Includes the impact from the settlement of uncertain tax positions with various tax authorities during 2018.
- Restructuring and separation activity: Includes the impact from company-wide restructuring activities during 2018 and the separation of Valvoline during 2017. These adjustments related to various tax impacts including state tax costs, foreign tax costs and other tax account adjustments.
- Other tax reform: Includes the impact of other items related to the Tax Act and other tax law changes enacted during 2018. These adjustments include the impact from the deductibility of compensation items and miscellaneous state tax items.
- Valuation allowances: Includes the impact from net operating loss and foreign tax credit valuation allowances during 2018 and 2017.
- Foreign dividends: Includes the impact from a significant deemed dividend inclusion in the U.S. during 2017. This deemed dividend transaction allowed Ashland to utilize foreign tax credit carryforwards which may have otherwise expired. This transaction was driven in part by projected changes to Ashland's business and tax profile as a result of the Valvoline separation.



# Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Reconciliation of Non-GAAP Data – Free Cash Flow and Adjusted Operating Income

### for Years Ended September 30, 2018 and 2017

(\$ millions)

	Year ended September 30	
	2018	2017
Free cash flow <sup>1</sup>		
Total cash flows provided by operating activities from continuing operations	\$ 344	\$ 273
Adjustments:		
Additions to property, plant and equipment	(185)	(199)
Free cash flows	<u>\$ 159</u>	<u>\$ 74</u>

	Year ended September 30	
	2018	2017
Adjusted operating income		
Operating income (as reported)	\$ 227	\$ 146
Key items, before tax:		
Restructuring, separation and other costs	99	106
Asset impairments	16	-
Tax indemnity expense	5	-
Environmental reserve adjustments	44	9
Legal settlement/reserve	(5)	5
Unplanned plant shutdowns	-	13
Inventory fair value adjustment	-	7
Adjusted operating income (non-GAAP)	<u>\$ 386</u>	<u>\$ 286</u>

<sup>1</sup> Free cash flow is defined as cash flows provided (used) by operating activities less additions to property, plant and equipment and other items Ashland has deemed non-operational (if applicable).



Ashland Global Holdings Inc.

## Reconciliation of Non-GAAP Data – Adjusted EBITDA for Years Ended September 30, 2018 and 2017

(\$ millions)

	Year ended September 30	
	2018	2017
Adjusted EBITDA - Ashland Global Holdings Inc.		
Net income (loss)	\$ 114	\$ 28
Income tax expense (benefit)	9	7
Net interest and other financing expense	122	234
Depreciation and amortization <sup>1</sup>	298	282
EBITDA	543	551
Income from discontinued operations (net of taxes)	(9)	(133)
Loss (gain) on pension and other postretirement plan remeasurements	(12)	6
Net loss on acquisitions and divestitures	2	6
Operating key items	159	140
Adjusted EBITDA	\$ 683	\$ 570

<sup>1</sup> Depreciation and amortization excludes accelerated depreciation of \$14 million and \$19 million for 2018 and 2017, respectively.

## Specialty Ingredients, Composites, Intermediates and Solvents

# Reconciliation of Non-GAAP Data – Adjusted EBITDA

### for Years Ended September 30, 2018 and 2017

(\$ millions)

	Years ended September 30	
	2018	2017
Adjusted EBITDA - Specialty Ingredients		
Operating income	\$ 314	\$ 233
Add:		
Depreciation and amortization <sup>1</sup>	246	229
Operating key items	14	31
Adjusted EBITDA	<u>\$ 574</u>	<u>\$ 493</u>
Adjusted EBITDA - Composites		
Operating income	\$ 73	\$ 67
Add:		
Depreciation and amortization	22	22
Operating key items	-	-
Adjusted EBITDA	<u>\$ 95</u>	<u>\$ 89</u>
Adjusted EBITDA - Intermediates and Solvents		
Operating income (loss)	\$ 31	\$ (12)
Add:		
Depreciation and amortization	30	31
Operating key items	-	7
Adjusted EBITDA	<u>\$ 61</u>	<u>\$ 26</u>

<sup>1</sup> Depreciation and amortization excludes accelerated depreciation of \$6 million and \$14 million for Specialty Ingredients for the years ended September 30, 2018 and 2017, respectively.

# Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Reconciliation of Non-GAAP Data – Adjusted Income from Continuing Operations

### for Years Ended September 30, 2018 and 2017

(\$ millions)

	Year ended September 30	
	2018	2017
Income (loss) from continuing operations (as reported)	\$ 105	\$ (105)
Key items, before tax:		
Restructuring, separation and other costs	99	106
Asset impairments	16	-
Tax indemnity expense	5	-
Loss (gain) on pension and other postretirement plan remeasurements	(12)	6
Environmental reserve adjustments	44	9
Legal settlement/reserve	(5)	5
Unplanned plant shutdowns	-	13
Inventory fair value adjustment	-	7
Debt refinancing costs	1	112
Net loss on acquisitions and divestitures	2	6
Key items, before tax:	150	264
Tax effect of key items <sup>1</sup>	(33)	(88)
Key items, after tax	117	176
Tax specific key items:		
Deferred tax rate changes	(139)	-
One-time transition tax	128	-
Uncertain tax positions	(26)	-
Restructuring and separation activity	36	17
Other tax reform	11	-
Valuation allowances	(4)	(21)
Foreign dividends	-	87
Tax specific key items <sup>2</sup>	6	83
Total key items	123	259
Adjusted income from continuing operations (non-GAAP)	\$ 228	\$ 154

<sup>1</sup> Represents the tax effect of the key items that are previously identified above.

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- One-time transition tax: Includes the one-time transition tax expense resulting from the enactment of the Tax Act during 2018.
- Uncertain tax positions: Includes the impact from the settlement of uncertain tax positions with various tax authorities during 2018.
- Restructuring and separation activity: Includes the impact from company-wide restructuring activities during 2018 and the separation of Valvoline during 2017. These adjustments related to various tax impacts including state tax costs, foreign tax costs and other tax account adjustments.
- Other tax reform: Includes the impact of other items related to the Tax Act and other tax law changes enacted during 2018. These adjustments include the impact from the deductibility of compensation items and miscellaneous state tax items.
- Valuation allowances: Includes the impact from net operating loss and foreign tax credit valuation allowances during 2018 and 2017.
- Foreign dividends: Includes the impact from a significant deemed dividend inclusion in the U.S. during 2017. This deemed dividend transaction allowed Ashland to utilize foreign tax credit carryforwards which may have otherwise expired. This transaction was driven in part by projected changes to Ashland's business and tax profile as a result of the Valvoline separation.



# Ashland Global Holdings Inc. and Consolidated Subsidiaries

## Reconciliation of Non-GAAP Data – Adjusted Diluted EPS from Continuing Operations

### for Years Ended September 30, 2018 and 2017

	Year ended September 30	
	2018	2017
Diluted EPS from continuing operations (as reported)	\$ 1.66	\$ (1.69)
Key items, before tax:		
Restructuring, separation and other costs	1.56	1.70
Asset impairments	0.25	-
Tax indemnity expense	0.08	-
Loss (gain) on pension and other postretirement plan remeasurements	(0.20)	0.09
Environmental reserve adjustments	0.68	0.15
Legal settlement/reserve	(0.07)	0.07
Unplanned plant shutdowns	-	0.21
Inventory fair value adjustment	-	0.11
Debt refinancing costs	0.02	1.78
Net loss on acquisitions and divestitures	0.04	0.09
Key items, before tax	2.36	4.20
Tax effect of key items <sup>1</sup>	(0.52)	(1.40)
Key items, after tax	1.84	2.80
Tax specific key items:		
Deferred tax rate changes	(2.19)	-
One-time transition tax	2.00	-
Uncertain tax positions	(0.40)	-
Restructuring and separation activity	0.56	0.28
Other tax reform	0.17	-
Valuation allowances	(0.06)	(0.33)
Foreign dividends	-	1.38
Tax specific key items <sup>2</sup>	0.08	1.33
Total key items	1.92	4.13
Adjusted diluted EPS from continuing operations (non-GAAP)	\$ 3.58	\$ 2.44

<sup>1</sup> Represents the tax effect of the key items that are previously identified above.

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- Deferred tax rate changes: Includes the impact from the remeasurement of Ashland's domestic deferred tax balances resulting from the enactment of the Tax Cuts and Jobs Act (Tax Act) as well as the impact from rate changes for other jurisdictions enacted during 2018.
- One-time transition tax: Includes the one-time transition tax expense resulting from the enactment of the Tax Act during 2018.
- Uncertain tax positions: Includes the impact from the settlement of uncertain tax positions with various tax authorities during 2018.
- Restructuring and separation activity: Includes the impact from company-wide restructuring activities during 2018 and the separation of Valvoline during 2017. These adjustments related to various tax impacts including state tax costs, foreign tax costs and other tax account adjustments.
- Other tax reform: Includes the impact of other items related to the Tax Act and other tax law changes enacted during 2018. These adjustments include the impact from the deductibility of compensation items and miscellaneous state tax items.
- Valuation allowances: Includes the impact from net operating loss and foreign tax credit valuation allowances during 2018 and 2017.
- Foreign dividends: Includes the impact from a significant deemed dividend inclusion in the U.S. during 2017. This deemed dividend transaction allowed Ashland to utilize foreign tax credit carryforwards which may have otherwise expired. This transaction was driven in part by projected changes to Ashland's business and tax profile as a result of the Valvoline separation.





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