## Fourth-Quarter Fiscal 2018 Earnings

November 6, 2018







### **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," "projects," "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 <a href="http://investor.ashland.com">http://investor.ashland.com</a> or on the SEC's website at <a href="http://www.sec.gov">http://www.sec.gov</a>. 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 <a href="http://www.sec.gov">http://www.sec.gov</a>.



## Fourth Quarter Summary



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

(\$ in millions) Preliminary	Fiscal Fourth Quarter Three months ended Sept. 30,												
		2018	1101		2017	100	Chan						
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

2 Unless otherwise noted, earnings are reported on a diluted share basis.



<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.

### **Specialty Ingredients**

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

(\$ in millions) Preliminary	Fiscal Fourth Quarter Three months ended Sept. 30,												
	2	2018		2	2017		Chan	ge					
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

All figures are presented on an adjusted basis except Sales. Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of operating income to adjusted EBITDA and operating income to adjusted operating income.



### **Specialty Ingredients**

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

	Fiscal Fourth Quarter										
(\$ in millions)	Three m	onths end	ed Sept. 30,	YTD							
Preliminary	2018	2017	Change	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>

- 1 Performance Specialties
- 2 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. 3										
	2	018		2	2017		Chan	ge			
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



All figures are presented on a GAAP basis except EBITDA and EBITDA as a percent of sales. Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of operating income to adjusted EBITDA and operating income to adjusted operating income.

#### Intermediates & Solvents

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

(\$ in millions) Preliminary	Fiscal Fourth Quarter Three months ended Sept. 30,											
		2018	1101		2017	100	Chan					
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



<sup>1</sup> All figures are presented on an adjusted basis except Sales and Selling, general and admin./R&D costs. Appendix C reconciles adjusted amounts to amounts reported under GAAP, including reconciliations of operating income to adjusted EBITDA and operating income to adjusted operating income.

## Fiscal Year Summary



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

(\$ in millions) Preliminary	Tw	Fiscal Year Twelve months ended Sept. 30											
	- 2	2018		2017	Chai	nge							
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 restructuringrelated costs
- Announced planned divestiture of Composites and BDO facility in Marl, Germany
- Announced \$120 million cost reduction program

<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).



<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.

## **Outlook Summary**

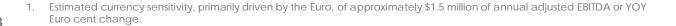


### Fiscal Year 2019 Outlook

### 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 <u>plus</u> \$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

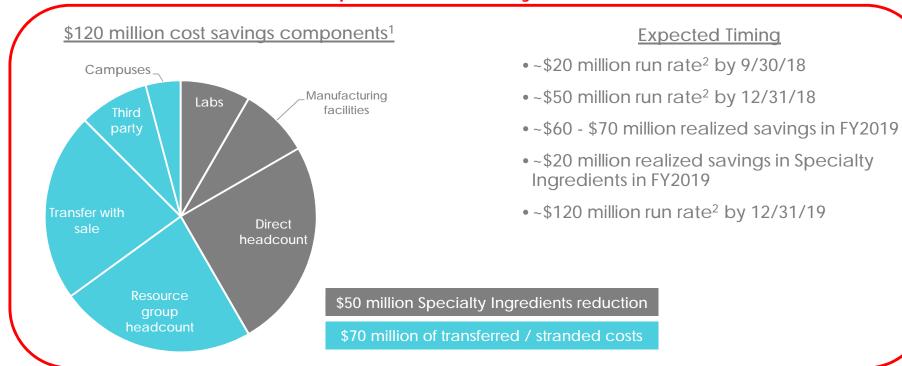
	Outlook
Adjusted EBITDA	
- Specialty Ingredients	\$610 - \$635 million
- Composites	\$95 - \$105 million
- Intermediates & Solvents	\$55 - \$65 million
- Unallocated and Other	(\$40 - \$50 million)
Key Operating Metrics	
- Adj. earnings per share (EPS)	\$4.20 - \$4.40
- Free cash flow	~\$230 million
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



### On track to achieve all cost reduction targets



<sup>2</sup> Run-rate savings are cost savings that have been achieved and will be realized in future periods.

### 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



## Appendix A: Key Items and Balance Sheet



# Fourth Fiscal Quarter - Continuing Operations Key Items Affecting Income

(\$ in millions, except EPS) Preliminary	Operating Income								Total				
						Una	llocated					Aft	ter-tax
	Spec	cialty					and					ea	rnings
2018	Ingre	dients	Composites	ا	&S		Other	Pre	e-tax	Afte	er-tax	per	r 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

		Interest			
Debt	Expiration	Rate	Moody's	S&P	
4.750% senior notes, par \$1,086	08/2022	4.750%	Ba3	BB-	\$ 1,083
TermLoan B <sup>1</sup>	05/2024	L+175	Ba1	BB+	593
6.875% senior notes, par \$375	05/2043	6.875%	Ba3	BB-	376
TermLoan 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 drawn⁴	03/2020	L+75/CP+60	)		86
6.5% debentures, par \$100	06/2029	6.500%	B2	ВВ	52
Revolver drawn <sup>5</sup>	05/2022	L + 175	Ba1	BB+	25
Other debt					10
Total debt			Ba2/	BB/	
Total debt			Stable	Stable	\$ 2,529
Cash					\$ 294
Net debt (cash)					\$ 2,235

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



<sup>&</sup>lt;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 million.

<sup>&</sup>lt;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

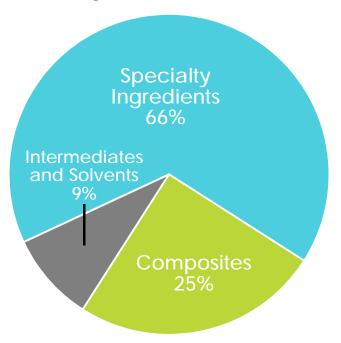
12 Months Ended September 30, 2018



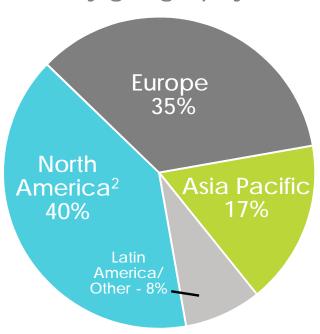
## Corporate Profile

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





### By geography

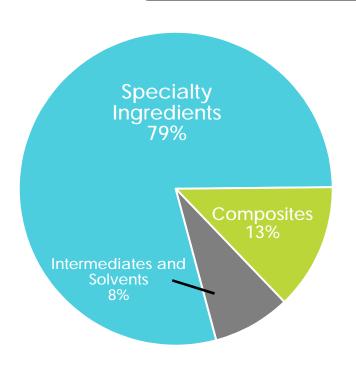




For 12 months ended September 30, 2018.
 Ashland includes only U.S. and Canada in its North America designation.

## 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:

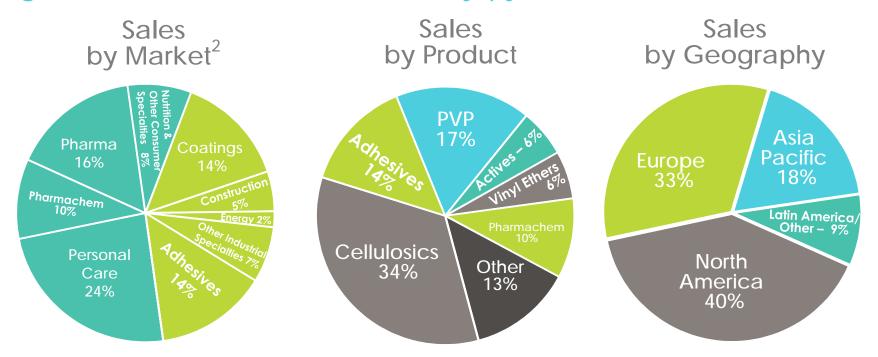
More than 100



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



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>

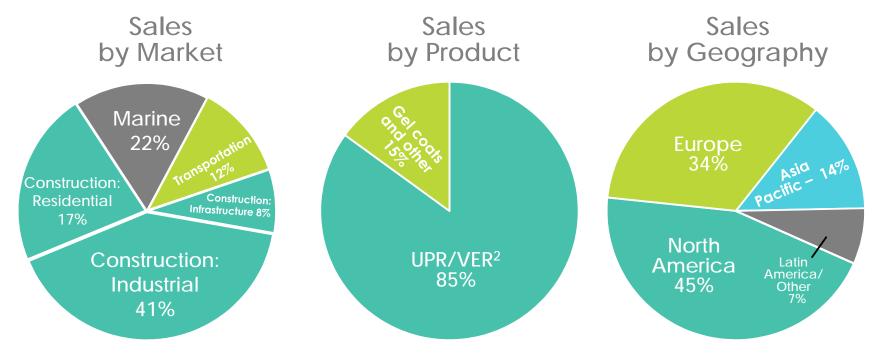
Within the Sales by Market chart above, Industrial Specialties are presented in green and Consumer Specialties are presented in blue.



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

### Composites

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



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>

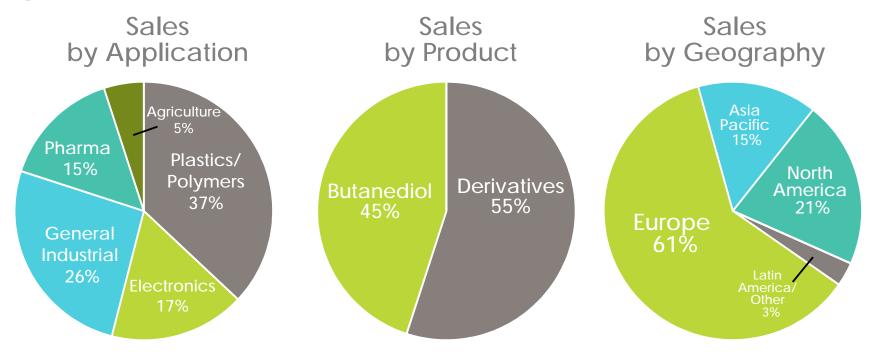
2 UPR stands for unsaturated polyester resins and VER stands for vinyl ester resins.



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

### Intermediates and Solvents

### A global leader in butanediol and related derivatives



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>



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

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

1 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
Adjusted EBITDA <sup>1</sup>	Q4 18	Q3 18	Q2 18	Q1 18	Total	Margin
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			ediates olvents		ocated Other	Total		
OPERATING INCOME (LOSS)											
Operating key items:											
Restructuring, separation and other costs	\$	(3)	\$	-	\$	-	\$	(53)	\$	(56)	
Asset impariments		(2)		-		-		(14)		(16)	
Tax indemnity expense		-		-		-		(5)		(5)	
All other operating income (loss)		97		14		9		(16)		104	
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) 13		(3) 13	
All other income tax expense								(1)	•	(1)	
INCOME (LOSS) FROM CONTINUING OPERATIONS	\$	92	\$	14	\$	9	\$	(104)	\$	11	
, , , , , , , , , , , , , , , , , , , ,	-		-		т		-	( /	-		

<sup>&</sup>lt;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.



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

# Ashland Global Holdings Inc. and Consolidated Subsidiaries Segment Components of Key Items for Applicable Income Statement Captions

for 3 Months Ended September 30, 2017

(	\$	r	Υ	1	i	ĺ	I	i	0	r	1	5	j
١	Ψ			я,	н		ı		$\sim$			0	1

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

<sup>&</sup>lt;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.



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

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

Three months ended

for 3 Months Ended September 30, 2018 and 2017

(\$ millions)	Three months ended September 30						
Free cash flows <sup>1</sup>	2018		2	2017			
Total cash flows provided by operating activities							
from continuing operations	\$	214	\$	142			
Adjustments:							
Additions to property, plant and equipment		(83)		(73)			
Free cash flows	\$	131	\$	69			

	September 30					
Adjusted operating income	2	018	2	017		
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)	\$	104	\$	84		

<sup>&</sup>lt;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).



### Reconciliation of Non-GAAP Data – Adjusted EBITDA

for 3 Months Ended September 30, 2018 and 2017

(\$ millions)

	111	Septen		
Adjusted EBITDA - Ashland Global Holdings Inc.	2	2018	2	2017
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	\$	179	\$	161

<sup>&</sup>lt;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.



Three months anded

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

(\$ millions)

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

<sup>&</sup>lt;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.



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

for 3 Months Ended September 30, 2018 and 2017

(\$ millions)		nths ended mber 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

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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.
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  - Uncertain tax positions: Includes the impact from the settlement of uncertain tax positions with various tax authorities during 2018.
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    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.



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

for 3 Months Ended September 30, 2018 and 2017

		months otember	
	2018		2017
Diluted EPS from continuing operations (as reported)	\$ 0.1	7 \$	(0.84)
Key items, before tax:			
Restructuring, separation and other costs	0.8	8	0.35
Asset impairments	0.2	5	-
Tax indemnity expense	0.0	8	-
Loss (gain) on pension and other postretirement plan remeasurements	(0.2	0)	0.13
Unplanned plant shutdowns		-	0.21
Inventory fair value adjustment		-	0.09
Key items, before tax	1.0	1	0.78
Tax effect of key items <sup>1</sup>	(0.1	8)	(0.29)
Key items, after tax	0.8	3	0.49
Tax specific key items:			
Deferred tax rate changes	(0.2	2)	-
One-time transition tax	(0.1	4)	-
Uncertain tax positions	(0.4	0)	-
Restructuring and separation activity	0.5	6	0.08
Other tax reform	0.1	7	-
Valuation allowances		-	(0.32)
Foreign dividends		-	1.37
Tax specific key items <sup>2</sup>	(0.0)	3)	1.13
Total key items	0.8	0	1.62
Adjusted diluted EPS from continuing operations (non-GAAP)	\$ 0.9	7 \$	0.78

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

Year ended

for Years Ended September 30, 2018 and 2017

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

	1 0 01	0110100	
	Septer	mber 30	0
-	2	2017	
\$	227	\$	146
	99		106
	16		-
	5		-
	44		9
	(5)		5
	-		13
	-		7
\$	386	\$	286
	\$	2018 \$ 227 99 16 5 44 (5)	\$ 227 \$ 99 16 5 44 (5) -

<sup>&</sup>lt;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).



(\$ millions)

### Reconciliation of Non-GAAP Data - Adjusted EBITDA

for Years Ended September 30, 2018 and 2017

(\$ millions)

			-
	Septer	nber (	30
2	2018	2	2017
\$	114	\$	28
	9		7
	122		234
	298		282
	543		551
	(9)		(133)
	(12)		6
	2		6
	159		140
\$	683	\$	570
		2018 \$ 114	\$ 114 \$ 9 122 298 543 (9) (12) 2 159



Vear ended

<sup>&</sup>lt;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	ende	d
		Septer	nber (	30
Adjusted EBITDA - Specialty Ingredients	-	2018		2017
Operating income	\$	314	\$	233
Add:				
Depreciation and amortization <sup>1</sup>		246		229
Operating key items		14		31
Adjusted EBITDA	\$	574	\$	493
Adjusted EBITDA - Composites				
Operating income	\$	73	\$	67
Add:				
Depreciation and amortization		22		22
Operating key items		-		-
Adjusted EBITDA	\$	95	\$	89
Adjusted EBITDA - Intermediates and Solvents				
Operating income (loss)	\$	31	\$	(12)
Add:				
Depreciation and amortization		30		31
Operating key items		-		7
Adjusted EBITDA	\$	61	\$	26
	<del></del>			

<sup>&</sup>lt;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.



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

for Years Ended September 30, 2018 and 2017

(\$ millions)		Year ended September 30			
(4 1111110113)	2018		2017		
Income (loss) from continuing operations (as reported) Key items, before tax:	\$	105	\$	(105)	
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	

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  - 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.



## 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) Key items, before tax:	\$	1.66	\$	(1.69)
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

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<sup>™</sup> Trademark, Ashland or its subsidiaries, registered in various countries