Investor Presentation

June 2022

YOUR CATALYST FOR POSITIVE CHANGE™

Legal Discussion

Continuing Operations

Financial results for are presented on a continuing operations basis, which excludes the Performance Materials business and Performance Chemicals business unless otherwise indicated.

Forward-Looking Statements

Some of the information contained in this presentation, the conference call during which this presentation is reviewed and any discussions that follow constitutes "forward-looking statements". Forward-looking statements can be identified by words such as "anticipates," "intends," "plans," "seeks," "believes," "estimates," "expects," "projects" and similar references to future periods. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Examples of forward looking statements include, but are not limited to, our future results of operations, financial condition, liquidity, prospects, growth, strategies, capital allocation programs (including the repurchase program and the possibility of implementing a dividend), product and service offerings, including the impact of COVID-19 pandemic on such items, and expected end use demand trends. Our actual results may differ materially from those contemplated by the forward-looking statements. We caution you, therefore, against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, regional, national or global political, economic, business, competitive, market and regulatory conditions, including the ongoing COVID-19 pandemic, tariffs, and trade disputes, currency exchange rates and other factors, including those described in the sections titled "Risk Factors" and "Management's Discussion & Analysis of Financial Condition and Results of Operations" in our filings with the SEC, which are available on the SEC's website at www.sec.gov. Any forward-looking statement made by us in this presentation, the conference call during which this presentation is reviewed and any discussions that follow speaks only as of the date on which it is made. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by applicable law.

Non-GAAP Financial Measures

This presentation includes certain non-GAAP financial measures, including adjusted EBITDA, adjusted EBITDA margin, leverage ratio and cash conversion, which are provided to assist in an understanding of our business and its performance. These non-GAAP financial measures should be considered only as supplemental to, and not as superior to, financial measures prepared in accordance with GAAP. Non-GAAP financial measures should be read only in conjunction with consolidated financials prepared in accordance with GAAP. Reconciliations of non-GAAP measures to the relevant GAAP measures are provided in the appendix of this presentation.

Zeolyst Joint Venture

Zeolyst International and Zeolyst C.V. (our 50% owned joint ventures that we refer to collectively as the "Zeolyst Joint Venture"), are accounted for as an equity method investment in accordance with GAAP. The presentation of the Zeolyst Joint Venture's sales in this presentation represents 50% of the sales of the Zeolyst Joint Venture. We do not record sales by the Zeolyst Joint Venture as revenue and such sales are not consolidated within our results of operations. However, our adjusted EBITDA reflects our share of the earnings of the Zeolyst Joint Venture that have been recorded as equity in net income from affiliated companies in our consolidated statements of income for such periods and includes Zeolyst Joint Venture adjustments on a proportionate basis based on our 50% ownership interest. Accordingly, our adjusted EBITDA margins are calculated including 50% of the sales of the Zeolyst Joint Venture for the relevant periods in the denominator.

Ecovyst Business Profile & Value Proposition

An Industry-leading Provider of Specialty Catalysts and Services into Key End Uses

- Favorable organic growth trends driven by end use demand and growing need for sustainable products and services
- Significant revenue visibility arising from customer collaborations, qualified and specified products, and long-term contracts
- Unit margin stability in inflationary environment provided by price leverage and contractual cost pass-through mechanisms
- Attractive segment Adjusted EBITDA margins in the 30% range
- Strong Cash Conversion[1] ratio (74% in 2021), with expectation for further improvement
- Improving leverage profile (3.1x at 3/31/2022 vs. 3.8x at 9/30/2021), with annual improvement via earnings growth and strong cash generation
- $450 million/4-year share repurchase authorization expands capital allocation flexibility – can include directed, negotiated buybacks from sponsors

1. Cash Conversion = (Adjusted EBITDA-Capex)/(Adjusted EBITDA)

Ecovyst At a Glance

Ecovyst
by the numbers

$743 Million
2021 Sales(1)

$228 Million
2021 Adjusted EBITDA(2)

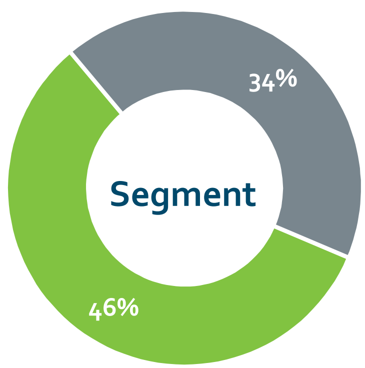
~2,000
Global Customers

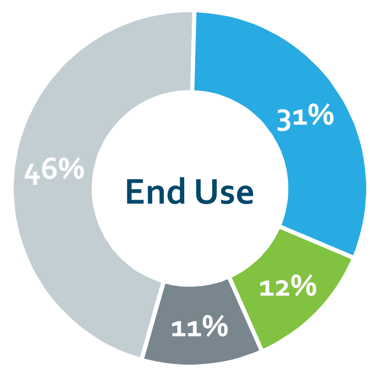
10
Manufacturing Facilities

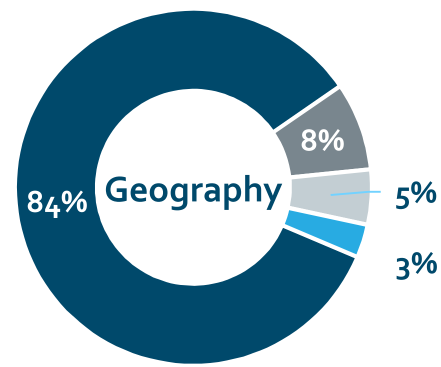
~880
Employees

Ecovyst is a leading, integrated provider of specialty catalysts and services. Through our **Ecoservices** and **Catalyst Technologies** businesses, we deliver chemistry-based technologies and solutions that help our customers meet the increasing demand for high-performing and sustainable products and services.

2021 Sales[1]

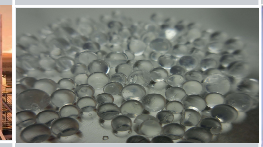






1. Includes sales from the Zeolyst joint venture of $131.3 million (50% owned).
2. Please refer to Appendix for reconciliation of non-GAAP measures.

Ecovyst Reporting Segments

	Ecoservices				Catalyst Technologies	
2021 Sales	$550.5 Million				$176.4 Million[2]	
2021 Adjusted EBITDA[1]	$177.7 Million				$88.0 Million	
	Regeneration Services	**Virgin Sulfuric Acid**	**Treatment Services**	**Catalyst Activation**	**Silica Catalysts (100% Ownership)**	**Zeolyst International (50% Ownership)[3]**
						
Supply Position	Industry Leader	North American Leader	Growing Provider (Primarily Gulf Coast)	Leading Provider	Leading Global Supplier of Silica Catalysts and Catalyst Supports	Leading Global Supplier of Specialty Zeolite Catalysts and Supports
Applications	• **Regeneration services for refinery alkylation** • Chemical spent acid regeneration	Producer of virgin sulfuric acid • Oleum (nylon production) • Electrolyte grades (for water treatment, semiconductors, lead acid batteries) • High strength **(minerals and metals production)** • Dilute acid • Sulfur co-products	• Hazardous waste • Non-Hazardous waste • **Beneficial reuse of energy in waste**	Ex-situ activation of catalysts for: • Hydro-processing • **Renewable fuel production** • International sales	• HDPE and LLDPE production • Polyethylene anti-blocking agents (plastic films) • Chemical production processes • **Renewable materials** • Metal recovery	• Hydro cracking of traditional fuels • **Production of renewable fuels** • Emission control technologies • Chemical & fuel production processes • Syngas synthesis • **Processes for plastic recycling**
Growth Drivers	• Favorable alkylate demand for high octane fuels • High industry utilization	• Growing needs for industrial applications (mining, nylon)	• Debottlenecking providing for further growth opportunities	• Growing demand for ex-situ activation in both traditional and renewable fuels	• Strengthening & light weighting of materials • Recycling of materials	• Growing demand for renewable fuels • Increasing regulation driving reduction in emissions

1. Excludes unallocated corporate expenses of $38.1 million. Please refer to reconciliation of non-GAAP measures included in Appendix.
2. Includes sales attributable to 50% ownership in Zeolyst joint venture.
3. Represents 50% of ownership with Shell Catalysts & Technologies

Financial Performance - Q1 2022

First Quarter Financial Results

($ in millions)	First Quarter 2022	First Quarter 2021	$ Change	% Change
Ecovyst Sales	179.7	126.6	53.1	42.0
Zeolyst JV Sales	29.0	29.0	0.0	0.0
Adjusted EBITDA[1]	59.2	42.3	17.0	40.1
Adjusted EBITDA Margin[1,2] (%)	28.4	27.2		120 bps

($ in millions)	$ Change	% Change
Sales Change Factors[3]		
Volume	13.8	10.9
Price (ex sulfur pass-through)	18.2	14.4
Price impact of sulfur pass-through	21.3	16.8
Currency	(0.2)	(0.2)

1. See Appendix for Reconciliations of non-GAAP measures.
2. Adjusted EBITDA margin calculation includes proportionate 50% share of sales from Zeolyst Joint Venture
3. Sales Change Factors exclude the Zeolyst Joint Venture

Ecoservices

($ in millions)	First Quarter 2022	First Quarter 2021	$ Change	% Change
Sales				
Ecoservices	154.0	100.2	53.8	53.7
Adjusted EBITDA	49.3	33.0	16.3	49.4
Adjusted EBITDA Margin[1] (%)	32.0	32.9		(90 bps)

Ecoservices Highlights

- Higher pricing more than offset rising sulfur, labor and fixed indexed costs
- Strong demand in regeneration services and virgin sulfuric acid
- Adjusted EBITDA up 50% on increased volumes, higher pricing, and the benefit of Chem32. The $21M pass- through of higher sulfur costs unfavorably impacted Adjusted EBITDA margins by 510 basis points.

Catalyst Technologies

($ in millions)	First Quarter 2022	First Quarter 2021	$ Change	% Change
Silica Catalysts Sales	25.7	26.4	(0.7)	(2.7)
Zeolyst JV Sales	29.0	29.0	0.0	0.0
Adjusted EBITDA	17.0	18.5	(1.5)	(8.1)
Adjusted EBITDA Margin[1] (%)	31.1	33.4		(230) bps

Catalyst Technologies Highlights

- Continued strong demand for polyethylene catalysts, partially offset delayed shipments and timing of certain niche custom catalyst sales which are expected to recover throughout the year
- Increased refinery utilization rates driving higher volume for hydrocracking and niche custom catalyst
- Price increases implemented late in 2021 and an energy surcharge program offsetting inflating costs
- Adjusted EBITDA and margins negatively impacted from lower volume and higher production costs

1. Adjusted EBITDA margin calculation includes proportionate 50% share of sales from Zeolyst Joint Venture

Robust Demand Fundamentals Prevail Despite Geopolitical Uncertainty

	End Use	Key Products	2021 & Total Sales	Industry Growth Rate	2022 Anticipated Demand Drivers
Ecoservices	CLEAN FUELS	Regeneration For Alkylation	~32%	~5%	Rebounding gasoline demand and exports Increasing U.S. refinery utilization to >90%
Ecoservices	INDUSTRIAL	Virgin Sulfuric Acid for Automotive, Electronics & Industrial	~28%	~4%	Green infrastructure and vehicle electrification driving high mining metals demand
Catalyst Technologies	CA/WT	Catalyst Activation & Waste Treatment	~7%	~20%	Global Renewable Diesel share of total Diesel to Increase from 2% in 2019 to potentially 5% in 2025
Catalyst Technologies	POLYMERS	Packaging and Engineered Plastics	~14%	~6%	PE growth driven by global demand for film and packaging
Catalyst Technologies	CLEAN FUELS/AIR	Catalyst for Emissions Control and Fuel production	~15%	~20%	Global refinery utilization> 80% driving strong demand for HCC catalyst. Catalyst demand growth from renewable diesel and SAF production

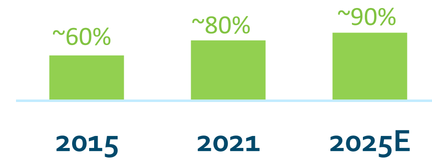
Sources: EIA, Goldman Sachs, HIS, LMC, IMF, IEA, Global Data, BCC, EPA

Innovation Portfolio Focused on Sustainable Solutions and Services

Sustainability Focused

- 75% of current end use sales address customer and consumer demand for more sustainable products and services
- More than 80% of innovation investment focused on products and services that enhance sustainability

% of R&D Spend On Green Technologies

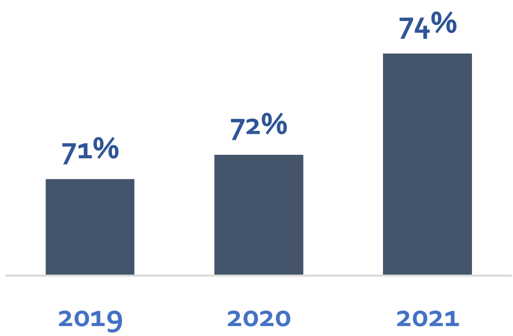


Global Sustainability Trend	Our products provide solutions that…
Clean Air	…Remove sulfur in diesel and Nox from emissions … Enable higher alkylation for improved fuel economy
Plastics Circularity	…Create more durable and lighter weight plastics …Enable chemical recycle and reuse of plastics
Renewable Fuels & Materials	…Help transform biomass into biofuels & synthetic rubber for green tires
Electrification	…Critical component in the production of metals and minerals needed for low carbon technologies
Waste Treatment	… Beneficial reuse of energy in hazardous and nonhazardous waste, averting landfill or deep well disposal

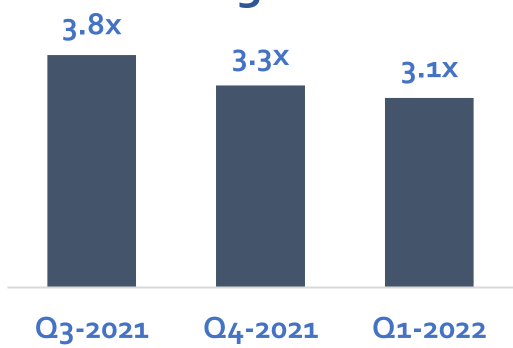
Leverage & Liquidity

Strong Cash Conversion Provides for Capital Allocation Flexibility and Improving Leverage Profile

Cash Conversion[1]

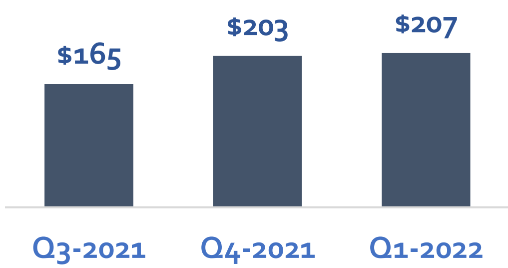


Leverage Ratio[2]



Liquidity[3]

($ Millions)



Cash Generation

- Historically modest capital spending
- Expect further improvement in conversion ratio with growth in Adjusted EBITDA

Leverage Ratio and Debt Profile

- Substantial cash generation capability has provided for annual reduction in leverage of approximately 0.5 turns/yr.
- No significant debt maturities until 2028
- No maintenance covenants on leverage
- Interest caps limit rate exposure

Liquidity

- At 3/31/2022 Liquidity comprised of Cash of $129.7 million and availability under the Revolving ABL facility of $76.8 million[4]
- Liquidity can support capital allocation strategy including organic growth initiatives, additional bolt-on acquisitions, and in conjunction with strong cash generation capability, the $450 million, 4-year share repurchase authorization

1. Cash Conversion = (Adjusted EBITDA-Capex)/(Adjusted EBITDA)
2. Leverage Ratio = (Total debt – cash and cash equivalents) / Adjusted EBITDA
3. Liquidity = Cash on hand + Availability on Revolving ABL Facility.
4. Net of $13.4 million of outstanding Letters of Credit

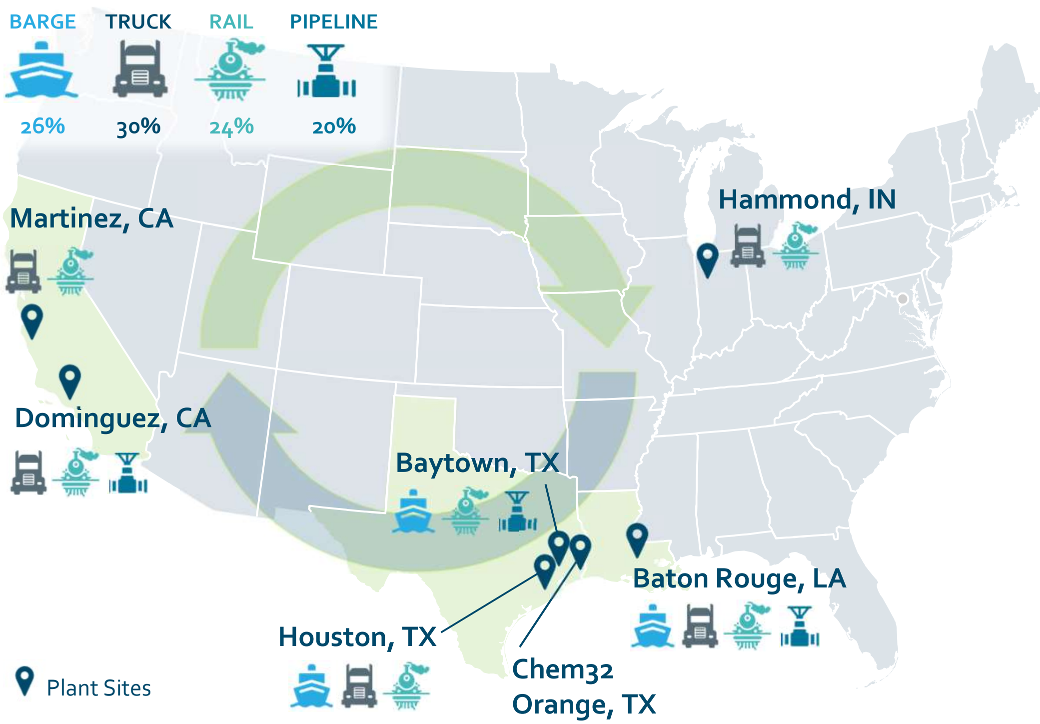
APPENDIX

ecovyst

Ecoservices: North American Leader in Sulfuric Acid Recycling and Related Services with Key Competitive Position in Gulf Coast and California

NEAR-TERM GROWTH FACTORS

- New long-term large customer contract, existing customer re-contracting, and favorable alkylate fundamentals expected to drive mid-to-high single digit volume growth for regeneration services
- Rising virgin acid consumption for electrification and green infrastructure enabling materials mining
- Increasing demand for sustainable waste solutions from industrials benefitting Treatment Services
- Accelerating off site Catalyst Activation demand from renewable fuels producers and traditional refineries



UNRIVALED SUPPLY INFRASTRUCTURE

- Managing end to end supply chain & customer inventories
- Production redundancy in key refining locations enables the highest degree of reliability

FAVORABLE CUSTOMER POSITIONS

- Long-term contracts with cost pass-through
- 100% of customer requirements
- Take-or-pay and capacity reservation fees

Catalyst Technologies: Global Leader in Tailored Catalyst Solutions

NEAR-TERM GROWTH FACTORS

- Preferred technology and increasing product offerings projected to drive high single digit growth in Clean Fuels & Air, Engineered Polymers, and Custom Catalyst
- New product launches planned in 2022 supporting the ongoing product development and collaboration with customers
- Disruptions caused by COVID-19 expected to be fully recovered across all business lines by 2H 2022

FLEXIBLE MANUFACTURING NETWORK

- Improved manufacturing network efficiencies following 2020/2021 disruption anticipated to return segment margins to high 30%s
- Continued debottlenecking production capacity for sold out product lines

FAVORABLE CUSTOMER POSITIONS

- Believe growing faster than market with existing polyethylene customers
- Strong growth in custom catalysts expected in 2022; diversified across multiple chemical processes
- Collaborating on multiple product development projects for new offerings in renewable fuels and materials and recycling of polymers

Quarterly Segment Sales, Adjusted EBITDA and Margins

	Three Months Ended	Three Months Ended				Twelve Months Ended
($ in millions, except %)	March 31, 2022	March 31, 2021	June 30, 2021	September 30, 2021	December 31, 2021	December 31, 2021
Sales:						
Ecoservices	154.0	100.2	120.8	137.5	142.0	500.5
Silica Catalysts	25.7	26.4	26.2	29.9	28.2	110.7
Total sales	**179.7**	**126.6**	**147.0**	**167.4**	**170.2**	**611.2**
Zeolyst Joint Venture sales	29.0	29.0	33.2	32.8	**36.3**	**131.3**
Adjusted EBITDA:						
Ecoservices	49.3	33.0	40.5	51.9	52.3	177.7
Catalyst Technologies	17.0	18.5	20.7	25.5	23.4	88.0
Unallocated corporate expense	(7.1)	(9.2)	(8.5)	(8.0)	(12.5)	(38.1)
Total Adjusted EBITDA	**59.2**	**42.3**	**52.7**	**69.4**	**63.2**	**227.6**
Adjusted EBITDA Margin:						
Ecoservices	32.0%	32.9%	33.5%	37.7%	36.8%	35.5%
Catalyst Technologies[1,2]	31.1%	33.4%	34.8%	40.7%	36.3%	36.4%
Total Adjusted EBITDA Margin[1,2]	**28.4%**	**27.2%**	**29.2%**	**34.7%**	**30.6%**	**30.7%**

1. See Appendix for Reconciliations of non-GAAP measures.
2. Totals include corporate costs

* Rounding discrepancies may arise when rounding results from dollars (in thousands) to dollars (in millions)

Reconciliation of Net (Loss) Income to Adjusted EBITDA

($ in millions, except %)	Three Months Ended March 31, 2022	Three Months Ended March 31, 2021	Three Months Ended June 30, 2021	Three Months Ended September 30, 2021	Three Months Ended December 31, 2021	Twelve Months Ended December 31, 2021	Twelve Months Ended December 31, 2020	Twelve Months Ended December 31, 2019
Reconciliation of net (loss) income from continuing operations to Adjusted EBITDA								
Net (loss) income from continuing operations	**7.9**	(2.7)	(7.9)	4.7	7.8	1.8	54.3	31.1
(Benefit) provision for income taxes	**5.7**	(5.2)	7.7	2.6	7.0	12.1	(52.1)	12.3
Interest expense, net	**8.5**	10.5	8.7	9.0	8.8	37.0	50.4	66.9
Depreciation and amortization	**19.5**	19.5	20.0	20.6	19.6	79.7	76.9	74.8
EBITDA	**41.6**	**22.1**	**28.5**	**36.9**	**43.2**	**130.6**	**129.5**	**185.1**
Joint venture depreciation, amortization and interest(a)	**4.1**	3.6	3.7	4.1	4.2	15.6	14.7	14.7
Amortization of investment in affiliate step-up(b)	**1.6**	1.7	1.6	1.6	1.6	6.5	6.6	7.5
Debt extinguishment costs	—	—	11.7	15.2	—	26.9	25.0	3.4
Net loss on asset disposals(c)	**0.1**	0.8	1.6	2.2	1.2	5.7	4.7	4.6
Foreign currency exchange loss (gain)(d)	**0.6**	5.1	(1.2)	0.9	(0.1)	4.7	(5.3)	1.2
LIFO (benefit) cost(e)	**0.2**	(0.3)	(0.5)	(1.3)	0.1	(1.9)	(5.3)	6.5
Transaction and other related costs(f)	**4.3**	0.5	0.6	0.5	0.4	2.0	1.1	0.2
Equity-based compensation	**7.3**	6.3	6.3	10.2	9.0	31.8	17.2	13.3
Restructuring, integration and business optimization expenses(g)	**0.4**	2.3	0.1	0.1	0.6	3.0	2.0	2.6
Defined benefit plan pension (benefit) cost(h)	**(0.6)**	(0.6)	(0.6)	(1.0)	1.3	(0.9)	(0.6)	0.6
Other(i)	**(0.4)**	0.8	0.9	—	1.7	3.6	3.0	0.4
Adjusted EBITDA	**59.2**	**42.3**	**52.7**	**69.4**	**63.2**	**227.6**	**192.6**	**240.1**
Capital Expenditures						62.4	46.2	54.0

1. For additional information with respect to each adjustment, see "Reconciliation of Non-GAAP Financial Measures"
2. Other expense (income), net includes debt extinguishment costs

* Rounding discrepancies may arise when rounding results from dollars (in thousands) to dollars (in millions)

Descriptions for Reconciliation of Non-GAAP Financial Measures

a) We use Adjusted EBITDA as a performance measure to evaluate our financial results. Because the Catalyst Technologies segment includes our 50% interest in the Zeolyst Joint Venture, we include an adjustment for our 50% proportionate share of depreciation, amortization and interest expense of the Zeolyst Joint Venture.

b) Represents the amortization of the fair value adjustments associated with the equity affiliate investment in the Zeolyst Joint Venture as a result of the combination of the businesses of Ecovyst Inc. and Eco Services Operations LLC in May 2016. We determined the fair value of the equity affiliate investment and the fair value step-up was then attributed to the underlying assets of the Zeolyst Joint Venture. Amortization is primarily related to the fair value adjustments associated with fixed assets and intangible assets, including customer relationships and technical know-how.

c) When asset disposals occur, we remove the impact of net gain/loss of the disposed asset because such impact primarily reflects the non-cash write-off of long-lived assets no longer in use.

d) Reflects the exclusion of the foreign currency transaction gains and losses in the statements of income primarily related to the non-permanent intercompany debt denominated in local currency translated to U.S. dollars.

e) Represents non-cash adjustments to the Company's LIFO reserves for certain inventories in the U.S. that are valued using the LIFO method, which we believe provides a means of comparison to other companies that may not use the same basis of accounting for inventories.

f) Relates to certain transaction costs, including debt financing, due diligence and other costs related to transactions that are completed, pending or abandoned, that we believe are not representative of our ongoing business operations.

g) Includes the impact of restructuring, integration and business optimization expenses which are incremental costs that are not representative of our ongoing business operations.

h) Represents adjustments for defined benefit pension plan (benefit) costs in our statements of income. All of our defined benefit pension plan obligations are under defined benefit pension plans that are frozen. As such, we do not view such income or expenses as core to our ongoing business operations.

i) Other costs consist of certain expenses that are not core to our ongoing business operations, including environmental remediation-related costs, capital and franchise taxes. Included in this line-item are rounding discrepancies that may arise from rounding from dollars (in thousands) to dollars (in millions).

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