
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of The Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): November 1, 2022

Ecovyst Inc.

Commission File Number: 001-38221

Delaware
(State or other jurisdiction of
incorporation or organization)

81-3406833
(I.R.S. Employer
Identification No.)

300 Lindenwood Drive
Malvern, Pennsylvania
(Address of principal executive offices)

19355
(Zip Code)

(484) 617-1200

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol	Name of each exchange on which registered
Common stock, par value \$0.01 per share	ECVT	New York Stock Exchange

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 2.02 Results of Operations and Financial Condition.

On November 1, 2022, Ecovyst Inc. issued a press release announcing the reporting of its financial results for the quarter ended September 30, 2022. A copy of the press release is furnished with this Current Report on Form 8-K as Exhibit 99.1 and is incorporated herein by reference.

The information in this Current Report on Form 8-K (including the exhibit attached hereto) shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that Section. The information in this Current Report on Form 8-K (including the exhibit attached hereto) shall not be deemed incorporated by reference into any filing or other document under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing or document.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release issued by Ecovyst Inc. announcing financial results for the quarter ended September 30, 2022
104	The cover page from this Current Report on Form 8-K of Ecovyst Inc., formatted in Inline XBRL and included as Exhibit 101

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: November 1, 2022

Ecovyst Inc.

By: /s/ MICHAEL FEEHAN

Name: Michael Feehan

Title: Vice President and Chief Financial Officer

Ecovyst Reports Third Quarter 2022 Results and Affirms Adjusted EBITDA Guidance

MALVERN, PA, November 1, 2022 -- Ecovyst Inc. (NYSE: ECVT) (“Ecovyst” or the “Company”), a leading integrated and innovative global provider of specialty catalysts and services, today reported results for the third quarter ended September 30, 2022 and affirmed its 2022 guidance, except for the sales guidance, which was reduced to reflect lower anticipated sulfur costs.

Third Quarter 2022 Results & Highlights

- Sales of \$233 million, up 39% compared to the third quarter of 2021
- Net income of \$21 million with diluted earnings per share of \$0.16; Adjusted net income of \$31 million with Adjusted diluted earnings per share of \$0.23
- Adjusted EBITDA of \$75 million, up 9% year-over-year with Adjusted EBITDA margins of 29%
- Year-to-date net cash from operations of \$109 million, Adjusted Free Cash Flow of \$85 million, and reduced net leverage ratio to 2.8x, compared to 3.3x at year-end 2021
- Repurchased 7,577,640 shares at an average price of \$8.56, for total cost of \$65 million.

Ecovyst results reflect continuing operations for the Ecoservices and Catalyst Technologies businesses, renamed from Refining Services and Catalysts, respectively. Financial results are on a continuing operations basis, which excludes the Performance Materials and Performance Chemicals businesses due to the recent divestitures from all quarterly and year-to-date results presented, unless otherwise indicated.

Financial results and outlook include non-GAAP financial measures. These non-GAAP measures are more fully described and are reconciled from the respective measures determined under GAAP in “Presentation of Non-GAAP Financial Measures” and the attached appendix.

Third Quarter 2022 Results

Sales for the quarter ended September 30, 2022 were \$233 million, up 39% over the prior year period, with the increase reflecting higher average selling prices (inclusive of a 17% sales increase, or \$28 million, associated with the pass-through of higher sulfur costs), higher volume of regeneration services in our Ecoservices business along with increases sales of polyethylene catalysts and niche custom catalysts in our Catalyst Technologies business.

Net income was \$21 million, an increase of \$17 million over the prior year period, with a diluted earnings per share of \$0.16. Adjusted net income was \$31 million with an Adjusted diluted earnings per share of \$0.23. Adjusted EBITDA was \$75 million, an increase of \$6 million or 9% over the prior year period, driven by higher pricing and higher sales volume that more than offset increases in variable costs.

“Ecovyst delivered strong results for the third quarter of 2022, powered by a continued growth in sales resulting from favorable demand fundamentals for Ecovyst’s products and services. In addition, continued strong pricing significantly mitigated inflationary pressures,” said Kurt J. Bitting, Ecovyst’s Chief Executive Officer. “Ecovyst’s products and services support critical industries and infrastructure, and as a supplier of essential materials enabling the ongoing expansion of low-carbon technologies, we expect our business to remain resilient for the balance of year. With strong momentum as we enter the fourth quarter, we currently anticipate that our full-year 2022 Adjusted EBITDA will be at the high end of our prior guidance of \$265 million-\$275 million,” said Bitting.

Review of Segment Results and Business Trends

The post-pandemic macroeconomic recovery in 2021 that drove improved demand across most product categories, end-uses and customers has continued in 2022, resulting in positive demand fundamentals for the first nine months of the year. We anticipate relative stability in demand over the balance of 2022. Inflationary pressures, including higher costs for sulfur, energy, logistics and other raw materials, also continued through the third quarter. However, contractual pass-through mechanisms and targeted price increases have served to mitigate the adverse impacts of higher variable costs on our businesses. Supply chain constraints, including limited availability and higher costs for transportation and logistics, have remained a factor. In response, we have continued efforts to minimize the associated impact on our businesses through enhanced coordination and planning with customers and suppliers using our strategic network.

Ecoservices

Our regeneration services support the production of alkylate, a high value gasoline component critical for meeting stringent gasoline standards and for producing premium grade gasoline. Tightening of gasoline standards and growing demand for premium grade gasoline to power high compression, more efficient engines has resulted in higher utilization for our customers' alkylation units. High refinery utilization and strong gasoline demand through the third quarter of 2022 continued to support production of alkylate, translating into robust demand for our regeneration services. Sulfuric acid is one of the most widely used chemicals and it plays a key role in producing a wide array of materials, particularly those supporting green infrastructure. Our sales of virgin sulfuric acid continued to benefit from healthy demand in the mining segment for metals and minerals that provide conductivity in low carbon technologies, as well as strong demand from numerous industrial segments, including construction, auto, and packaging materials. We believe sustainability trends will continue to favor our treatment services business as customers seek the sustainability-focused waste solutions offered by Ecoservices.

Sales of \$196 million were up 42% compared to the year-ago quarter. Sales increased on higher contract pricing, including pass-through of higher sulfur cost of approximately \$28 million, as well as higher volume of regeneration services. Adjusted EBITDA of \$64 million increased 24% year over year, largely attributable to strong regeneration services demand and favorable pricing that more than offset higher raw material, energy, and freight costs.

Catalyst Technologies

Growth in demand for polyethylene films and packaging has continued to drive higher sales of polyethylene catalysts. In addition, demand for traditional fuels remains strong and demand for renewable fuels increased. We continue to expect growth in demand for catalysts used in these applications. Higher demand for refined products has resulted in high refinery industry utilization and high refining margins, as well as the deferral of planned turnarounds as refiners seek to maximize profitability. As a result, this delay in planned turnarounds has impacted the timing of certain catalysts sales.

During the third quarter of 2022, Silica catalysts sales were \$37 million, up 23% compared to the year-ago quarter, reflecting higher polyethylene and niche custom catalysts sales. Zeolyst Joint Venture sales of \$28 million were down 15% compared to the year-ago quarter on the timing of hydrocracking catalysts sales driven by delayed refinery turnarounds. Adjusted EBITDA, which includes the Zeolyst Joint Venture, was \$19 million, down 24% compared to the year-ago quarter driven by less favorable product mix and higher production costs within the quarter.

Cash Flows and Balance Sheet

Cash flows from operating activities was \$109 million for the nine months ended September 30, 2022, compared to \$85 million for the nine months ended September 30, 2021. At September 30, 2022, the Company had total gross debt of \$889 million and available liquidity of \$199 million, including cash and cash equivalents of \$121 million. The net debt to Adjusted EBITDA ratio was 2.8x as of September 30, 2022.

2022 Financial Outlook

Full Year 2022 Guidance is as follows:

- Sales of \$810 million to \$830 million¹ (decreased from \$830 million to \$850 million to reflect lower anticipated sulfur costs)
- Sales of \$135 million to \$145 million for proportionate 50% share of Zeolyst Joint Venture, which is excluded from GAAP Sales
- Adjusted EBITDA of \$265 million to \$275 million, up 19% from 2021 at the mid-point of the range
- Adjusted Free Cash Flow of \$115 million to \$125 million
- Capital Expenditures of \$55 million to \$65 million

¹Sales outlook for 2022 includes approximately \$90 million of higher sales vs. 2021 due to the pass through of increased sulfur costs, which is expected to negatively impact Adjusted EBITDA margin by more than (400) basis points, but would have no material impact to Adjusted EBITDA.

Stock Repurchase Authorization

In April 2022, the Company's Board of Directors approved a new stock repurchase program authorizing the repurchase of up to \$450 million of the Company's outstanding common stock over the next four years. Repurchases under the program are expected to be funded using cash on hand and cash generated from operations. Ecovyst primarily expects to conduct the repurchase program through negotiated transactions with Ecovyst's equity sponsors, as well as through open market repurchases or other means, including through Rule 10b-18 trading plans or through the use of other techniques such as accelerated share repurchases.

During the third quarter of 2022, the Company repurchased 1,077,640 shares of its common stock on the open market at an average price of \$9.77 per share for a total cost of \$11 million. In addition, in connection with a secondary offering of the Company's common stock in August 2022, the Company repurchased 6,500,000 shares of its common stock sold in the offering from the underwriters at a price of \$8.36 per share, for a total of \$54 million. For possible future repurchases, the actual timing, number, and nature of shares repurchased will depend on a variety of factors, including stock price, trading volume, and general business and market conditions. The repurchase program does not obligate the Company to acquire any number of shares in any specific period, or at all, and may be amended, suspended or discontinued at any time at the Company's discretion. As of September 30, 2022, \$376 million was available for additional share repurchases under the program.

Conference Call and Webcast Details

On Tuesday, November 1, 2022, Ecovyst management will review the third quarter results during a conference call and audio-only webcast scheduled for 11:00 a.m. Eastern Time.

Conference Call: Investors may listen to the conference call live via telephone by dialing 1 (800) 245-3047 (domestic) or 1 (203) 518-9765 (international) and use the participant code ECVTQ322.

Webcast: An audio-only live webcast of the conference call and presentation materials can be accessed at <https://investor.ecovyst.com>. A replay of the conference call/webcast will be made available at <https://investor.ecovyst.com/events-presentations>.

Investor Contact:

Gene Shiels
(484) 617-1225
gene.shiels@ecovyst.com

About Ecovyst Inc.

Ecovyst Inc. and subsidiaries is a leading integrated and innovative global provider of specialty catalysts and services. We support customers globally through our strategically located network of manufacturing facilities. We believe that our products, which are predominantly inorganic, and services contribute to improving the sustainability of the environment.

We have two uniquely positioned specialty businesses: *Ecoservices* provides sulfuric acid recycling to the North American refining industry for the production of alkylate and provides on-purpose virgin sulfuric acid for water treatment, mining, and industrial applications; and *Catalyst Technologies* provides finished silica catalysts and catalyst supports necessary to produce high strength and high stiffness plastics and, through its Zeolyst joint venture, supplies zeolites used for catalysts that help produce renewable fuels, remove nitrogen oxides from diesel engine emissions as well as sulfur from fuels during the refining process. For more information, see our website at <https://www.ecovyst.com>.

Presentation of Non-GAAP Financial Measures

In addition to the results provided in accordance with U.S. generally accepted accounting principles ("GAAP") throughout this press release, the Company has provided non-GAAP financial measures — Adjusted EBITDA, Adjusted EBITDA margin, Adjusted net income, Adjusted free cash flow, Adjusted diluted EPS, and net leverage ratio (collectively, "Non-GAAP Financial Measures") — which present results on a basis adjusted for certain items. The Company uses these Non-GAAP Financial Measures for business planning purposes and in measuring its performance relative to that of its competitors. The Company believes that these Non-GAAP Financial Measures are useful financial metrics to assess its operating performance from period-to-period by excluding certain items that the Company believes are not representative of its core business. These Non-GAAP Financial Measures are not intended to replace, and should not be considered superior to, the presentation of the Company's financial results in accordance with GAAP. The use of the Non-GAAP Financial Measures terms may differ from similar measures reported by other companies and may not be comparable to other similarly titled measures. These Non-GAAP Financial Measures are reconciled from the respective measures under GAAP in the appendix below.

The Company is not able to provide a reconciliation of its non-GAAP financial guidance to the corresponding GAAP measures without unreasonable effort because of the inherent difficulty in forecasting and quantifying certain amounts necessary for such a reconciliation such as certain non-cash, nonrecurring or other items that are included in net income and EBITDA as well as the related tax impacts of these items and asset dispositions / acquisitions and changes in foreign currency exchange rates that are included in cash flow, due to the uncertainty and variability of the nature and amount of these future charges and costs.

Zeolyst Joint Venture

The Company's zeolite catalysts product group operates through its Zeolyst Joint Venture, which is accounted for as an equity method investment in accordance with GAAP. The presentation of the Zeolyst Joint Venture's sales represents 50% of the sales of the Zeolyst Joint Venture. The Company does not record sales by the Zeolyst Joint Venture as revenue and such sales are not consolidated within the Company's results of operations. However, the Company's Adjusted EBITDA reflects the share of earnings of the Zeolyst Joint Venture that have been recorded as equity in net income from affiliated companies in the Company's consolidated statements of income for such periods and includes Zeolyst Joint Venture adjustments on a proportionate basis based on the Company's 50% ownership interest. Accordingly, the Company's Adjusted EBITDA margins are calculated including 50% of the sales of the Zeolyst Joint Venture for the relevant periods in the denominator.

Note on Forward-Looking Statements

Some of the information contained in this press release 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, statements regarding our future results of operations, financial condition, liquidity, prospects, growth, strategies, capital allocation program (including the stock repurchase program), product and service offerings, expected demand trends and our 2022 financial outlook. 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 COVID-19 pandemic, tariffs and trade disputes, currency exchange rates, the effects of inflation, the ongoing war in Ukraine 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. These forward-looking statements speak only as of the date of this release. 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.



ECOVYST INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(in millions, except share and per share amounts)

	Three months ended September 30,			Nine months ended September 30,		
	2022	2021	% Change	2022	2021	% Change
Sales	\$ 232.5	\$ 167.4	38.9 %	\$ 637.4	\$ 441.0	44.5 %
Cost of goods sold	164.8	113.8	44.8 %	462.2	318.8	45.0 %
Gross profit	67.7	53.6	26.3 %	175.3	122.2	43.5 %
Selling, general and administrative expenses	21.5	24.8	(13.3)%	67.8	68.8	(1.5)%
Other operating expense, net	7.7	6.3	22.2 %	25.1	16.8	49.4 %
Operating income	38.5	22.5	71.1 %	82.4	36.6	125.1 %
Equity in net (income) from affiliated companies	(3.2)	(8.8)	(63.6)%	(17.4)	(20.7)	(15.9)%
Interest expense, net	9.5	9.0	5.6 %	26.9	28.2	(4.6)%
Debt extinguishment costs	—	15.2	(100.0)%	—	26.9	(100.0)%
Other expense (income), net	1.9	(0.2)	NM	2.5	3.1	(19.4)%
Income (loss) before income taxes and noncontrolling interest	30.3	7.3	315.1 %	70.4	(0.9)	NM
Provision for income taxes	9.0	2.6	246.2 %	22.0	5.1	331.4 %
Effective tax rate	29.6 %	35.6 %		31.2 %	(610.9) %	
Net income (loss) from continuing operations	21.3	4.7	353.2 %	48.4	(6.0)	(906.7)%
Net loss from discontinued operations, net of tax	—	(75.9)	(100.0)%	—	(159.1)	(100.0)%
Net income (loss)	21.3	(71.2)	(129.9)%	48.4	(165.1)	(129.3)%
Less: Net income attributable to the noncontrolling interest—discontinued operations	—	0.1	(100.0)%	—	0.3	(100.0)%
Net income (loss) attributable to Ecovyst Inc.	\$ 21.3	\$ (71.3)	(129.9)%	\$ 48.4	\$ (165.4)	(129.3)%
Income (loss) from continuing operations attributable to Ecovyst Inc.	\$ 21.3	\$ 4.7		\$ 48.4	\$ (6.0)	
Loss from discontinued operations attributable to Ecovyst Inc.	\$ —	\$ (76.0)		\$ —	\$ (159.4)	
Net income (loss) attributable to Ecovyst Inc.	\$ 21.3	\$ (71.3)		\$ 48.4	\$ (165.4)	
Earnings per share:						
Basic income (loss) per share—continuing operations	\$ 0.16	\$ 0.03		\$ 0.36	\$ (0.04)	
Diluted income (loss) per share—continuing operations	\$ 0.16	\$ 0.03		\$ 0.35	\$ (0.04)	
Weighted average shares outstanding:						
Basic	132,622,105	136,129,591		136,115,598	136,111,555	
Diluted	134,096,839	137,354,427		137,666,215	136,111,555	



ECOVYST INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(in millions, except share and per share amounts)

	September 30, 2022	December 31, 2021
ASSETS		
Cash and cash equivalents	\$ 121.4	\$ 140.9
Accounts receivable, net	107.0	80.8
Inventories, net	49.7	53.8
Prepaid and other current assets	46.1	16.2
Total current assets	324.2	291.7
Investments in affiliated companies	426.7	446.1
Property, plant and equipment, net	581.4	596.2
Goodwill	401.2	406.1
Other intangible assets, net	132.3	145.6
Right-of-use lease assets	29.7	30.1
Other long-term assets	36.3	15.4
Total assets	\$ 1,931.8	\$ 1,931.2
LIABILITIES		
Current maturities of long-term debt	\$ 9.0	\$ 9.0
Accounts payable	52.0	51.9
Operating lease liabilities—current	8.6	8.3
Accrued liabilities	65.1	75.9
Total current liabilities	134.7	145.1
Long-term debt, excluding current portion	867.6	872.8
Deferred income taxes	148.0	126.7
Operating lease liabilities—noncurrent	21.0	21.7
Other long-term liabilities	21.0	24.2
Total liabilities	1,192.3	1,190.5
Commitments and contingencies		
EQUITY		
Common stock (\$0.01 par); authorized shares 450,000,000; issued shares 139,485,868 and 137,820,971 on September 30, 2022 and December 31, 2021, respectively; outstanding shares 130,100,834 and 136,938,758 on September 30, 2022 and December 31, 2021, respectively	1.4	1.4
Preferred stock (\$0.01 par); authorized shares 50,000,000; no shares issued or outstanding on September 30, 2022 and December 31, 2021	—	—
Additional paid-in capital	1,088.7	1,073.4
Accumulated deficit	(267.3)	(315.7)
Treasury stock, at cost; shares 9,385,034 and 882,213 on September 30, 2022 and December 31, 2021, respectively	(86.6)	(12.6)
Accumulated other comprehensive income (loss)	3.3	(5.8)
Total equity	739.5	740.7
Total liabilities and equity	\$ 1,931.8	\$ 1,931.2



ECOVYST INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	Nine months ended September 30,	
	2022	2021
	(in millions)	
Cash flows from operating activities:		
Net income (loss)	\$ 48.4	\$ (165.1)
Net loss from discontinued operations	—	159.1
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation	48.3	49.9
Amortization	10.5	10.2
Amortization of deferred financing costs and original issue discount	1.5	1.4
Debt extinguishment costs	—	12.8
Foreign currency exchange loss	2.2	4.8
Deferred income tax provision	12.5	4.3
Net loss on asset disposals	1.2	4.5
Stock compensation	17.4	22.8
Equity in net income from affiliated companies	(17.4)	(20.7)
Dividends received from affiliated companies	30.0	20.0
Other, net	(2.8)	6.7
Working capital changes that provided (used) cash, excluding the effect of acquisitions and dispositions:		
Receivables	(28.4)	(33.8)
Inventories	3.2	6.1
Prepays and other current assets	(5.2)	(8.4)
Accounts payable	2.0	10.1
Accrued liabilities	(14.1)	7.5
Net cash provided by operating activities, continuing operations	109.3	92.3
Net cash used by operating activities, discontinued operations	—	(7.4)
Net cash provided by operating activities	109.3	84.9
Cash flows from investing activities:		
Purchases of property, plant and equipment	(39.5)	(44.6)
Proceeds from business divestiture, net of cash	—	980.4
Payments for business divestiture, net of cash	(3.7)	—
Business combinations, net of cash acquired	(0.5)	(42.8)
Other, net	0.1	(0.1)
Net cash (used in) provided by investing activities, continuing operations	(43.6)	892.9
Net cash used in investing activities, discontinued operations	—	(40.9)
Net cash (used in) provided by investing activities	(43.6)	852.0

	Nine months ended September 30,	
	2022	2021
Cash flows from financing activities:		
Issuance of long-term debt, net of discount	—	897.8
Debt issuance costs	—	(1.3)
Repayments of long-term debt	(6.8)	(1,428.6)
Debt prepayment fees	—	(8.5)
Proceeds from failed sale-leaseback	—	14.6
Dividends paid to stockholders	—	(435.6)
Repurchases of common shares	(73.7)	—
Tax withholdings on equity award vesting	(0.3)	(1.5)
Proceeds from stock options exercised	0.1	0.2
Repayment of financing obligations	(1.8)	(0.5)
Other, net	(0.1)	(0.1)
Net cash used in financing activities, continuing operations	(82.6)	(963.5)
Net cash used in financing activities, discontinued operations	—	(1.1)
Net cash used in financing activities	(82.6)	(964.6)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(2.6)	(4.7)
Net change in cash and cash equivalents	(19.5)	(32.4)
Cash and cash equivalents at beginning of period	140.9	137.2
Cash and cash equivalents at end of period	121.4	104.8
Less: cash, cash equivalents, and restricted cash of discontinued operations	—	—
Cash and cash equivalents at end of period of continuing operations	<u>\$ 121.4</u>	<u>\$ 104.8</u>

Appendix Table A-1: Reconciliation of Net Income (Loss) to Adjusted EBITDA

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
	(in millions)			
Reconciliation of net income (loss) from continuing operations to Adjusted EBITDA				
Net income (loss) from continuing operations	\$ 21.3	\$ 4.7	\$ 48.4	\$ (6.0)
Provision for income taxes	9.0	2.6	22.0	5.1
Interest expense, net	9.5	9.0	26.9	28.2
Depreciation and amortization	19.6	20.6	58.8	60.1
EBITDA	59.4	36.9	156.1	87.4
Joint venture depreciation, amortization and interest ^(a)	3.9	4.1	12.0	11.4
Amortization of investment in affiliate step-up ^(b)	1.6	1.6	4.8	4.9
Debt extinguishment costs	—	15.2	—	26.9
Net loss on asset disposals ^(c)	0.5	2.2	1.2	4.5
Foreign currency exchange loss ^(d)	1.0	0.9	2.2	4.8
LIFO benefit ^(e)	(0.4)	(1.3)	—	(2.0)
Transaction and other related costs ^(f)	1.8	0.5	6.9	1.6
Equity-based compensation	4.7	10.2	17.4	22.8
Restructuring, integration and business optimization expenses ^(g)	1.3	0.1	6.4	2.4
Defined benefit pension plan expense (benefit) ^(h)	0.3	(1.0)	(0.8)	(2.2)
Other ⁽ⁱ⁾	1.3	—	1.4	1.9
Adjusted EBITDA	\$ 75.4	\$ 69.4	\$ 207.6	\$ 164.4

Descriptions to Ecovyst Non-GAAP Reconciliations

- (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 PQ Holdings 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).

Appendix Table A-2: Reconciliation of Net Income (Loss) to Adjusted Net Income⁽¹⁾

	Three months ended September 30,					
	2022			2021		
	Pre-tax	Tax expense (benefit)	After-tax	Pre-tax	Tax expense (benefit)	After-tax
	(in millions)					
Net income from continuing operations	\$ 30.3	\$ 9.0	\$ 21.3	\$ 7.3	\$ 2.6	\$ 4.7
Earnings per share:						
Basic earnings per share - continuing operations			\$ 0.16			\$ 0.03
Diluted earnings per share - continuing operations			\$ 0.16			\$ 0.03
Net income from continuing operations	\$ 30.3	\$ 9.0	\$ 21.3	\$ 7.3	\$ 2.6	\$ 4.7
Amortization of investment in affiliate step-up ^(b)	1.6	0.5	1.1	1.6	0.5	1.1
Debt extinguishment costs	—	—	—	15.2	4.4	10.8
Net loss on asset disposals ^(c)	0.5	0.2	0.3	2.2	0.5	1.7
Foreign currency exchange loss ^(d)	1.0	0.2	0.8	0.9	0.2	0.7
LIFO benefit ^(e)	(0.4)	(0.1)	(0.3)	(1.3)	(0.4)	(0.9)
Transaction and other related costs ^(f)	1.8	0.5	1.3	0.5	0.2	0.3
Equity-based compensation	4.7	0.1	4.6	10.2	2.9	7.3
Restructuring, integration and business optimization expenses ^(g)	1.3	0.4	0.9	0.1	0.1	—
Defined benefit plan pension expense (benefit) ^(h)	0.3	0.1	0.2	(1.0)	(0.3)	(0.7)
Other ⁽ⁱ⁾	1.3	0.4	0.9	—	—	—
Adjusted Net Income, including Intraproduct allocation	42.4	11.3	31.1	35.7	10.7	25.0
Intraproduct allocation for restating discontinued operations ⁽³⁾	—	—	—	—	(0.5)	0.5
Adjusted Net Income ⁽¹⁾	\$ 42.4	\$ 11.3	\$ 31.1	\$ 35.7	\$ 10.2	\$ 25.5
Adjusted earnings per share:						
Adjusted basic earnings per share			\$ 0.23			\$ 0.19
Adjusted diluted earnings per share			\$ 0.23			\$ 0.19
Weighted average shares outstanding:						
Basic			132,622,105			136,129,591
Diluted			134,096,839			137,354,427

	Nine months ended September 30,					
	2022			2021		
	Pre-tax	Tax expense (benefit)	After-tax	Pre-tax	Tax expense (benefit)	After-tax
	(in millions)					
Net income (loss) from continuing operations	\$ 70.4	\$ 22.0	\$ 48.4	\$ (0.9)	\$ 5.1	\$ (6.0)
Earnings per share:						
Basic earnings (loss) per share - continuing operations			\$ 0.36			\$ (0.04)
Diluted earnings (loss) per share - continuing operations			\$ 0.35			\$ (0.04)
Net income (loss) from continuing operations	\$ 70.4	\$ 22.0	\$ 48.4	\$ (0.9)	\$ 5.1	\$ (6.0)
Amortization of investment in affiliate step-up ^(b)	4.8	1.3	3.5	4.9	1.4	3.5
Debt extinguishment costs	—	—	—	26.9	7.5	19.4
Net loss on asset disposals ^(c)	1.2	0.3	0.9	4.5	1.2	3.3
Foreign currency exchange loss ^(d)	2.2	0.4	1.8	4.8	1.3	3.5
LIFO benefit ^(e)	—	—	—	(2.0)	(0.6)	(1.4)
Transaction and other related costs ^(f)	6.9	1.7	5.2	1.6	0.5	1.1
Equity-based compensation ⁽²⁾	17.4	0.6	16.8	22.8	6.4	16.4
Restructuring, integration and business optimization expenses ^(g)	6.4	1.8	4.6	2.4	0.7	1.7
Defined benefit plan pension benefit ^(h)	(0.8)	(0.2)	(0.6)	(2.2)	(0.6)	(1.6)
Other ⁽ⁱ⁾	1.4	0.4	1.0	1.9	0.6	1.3
Adjusted Net Income, including Intraproduct allocation	109.9	28.3	81.6	64.7	23.5	41.2
Intraproduct allocation for restating discontinued operations ⁽³⁾	—	—	—	—	(5.3)	5.3
Adjusted Net Income ⁽¹⁾	<u>\$ 109.9</u>	<u>\$ 28.3</u>	<u>\$ 81.6</u>	<u>\$ 64.7</u>	<u>\$ 18.2</u>	<u>\$ 46.5</u>
Adjusted earnings per share:						
Adjusted basic earnings per share			\$ 0.60			\$ 0.34
Adjusted diluted earnings per share			\$ 0.59			\$ 0.34
Weighted average shares outstanding:						
Basic			136,115,598			136,111,555
Diluted			137,666,215			136,111,555

See Appendix Table A-1 for Descriptions to Ecovyst Non-GAAP Reconciliations in the table above.

- (1) We define adjusted net income as net income attributable to Ecovyst adjusted for non-operating income or expense and the impact of certain non-cash or other items that are included in net income that we do not consider indicative of our ongoing operating performance. Adjusted net income is presented as a key performance indicator as we believe it will enhance a prospective investor's understanding of our results of operations and financial condition. Adjusted net income may not be comparable with net income or adjusted net income as defined by other companies.
- (2) Includes tax adjustments for the shortfall in stock compensation.
- (3) Due to the sale of the Performance Chemicals business, the tax rates used to value deferred tax assets ("DTAs") and deferred tax liabilities ("DTLs") needs to be adjusted. Given it is a direct result of the sale of discontinued operations and the need to adjust the tax rate arose because of discontinued operations, the impact of revaluing the reporting entity's DTAs and DTLs are reflected in continuing operations.

Appendix Table A-3: Sales and Adjusted EBITDA by Business Segment

	Three months ended September 30,			Nine months ended September 30,		
	2022	2021	% Change	2022	2021	% Change
Sales:						
Ecoservices	\$ 195.7	\$ 137.5	42.3 %	\$ 542.7	\$ 358.5	51.4 %
Silica Catalysts	36.8	29.9	23.1 %	94.7	82.5	14.8 %
Total sales	<u>\$ 232.5</u>	<u>\$ 167.4</u>	<u>38.9 %</u>	<u>\$ 637.4</u>	<u>\$ 441.0</u>	<u>44.5 %</u>
Zeolyst Joint Venture sales	\$ 27.8	\$ 32.8	(15.3)%	\$ 92.7	\$ 95.0	(2.4)%
Adjusted EBITDA:						
Ecoservices	\$ 64.1	\$ 51.9	23.5 %	\$ 173.4	\$ 125.4	38.3 %
Catalyst Technologies	19.3	25.5	(24.3)%	57.7	64.6	(10.7)%
Unallocated corporate expenses	(8.0)	(8.0)	— %	(23.5)	(25.6)	(8.2)%
Total Adjusted EBITDA	<u>\$ 75.4</u>	<u>\$ 69.4</u>	<u>8.6 %</u>	<u>\$ 207.6</u>	<u>\$ 164.4</u>	<u>26.3 %</u>
Adjusted EBITDA Margin:						
Ecoservices	32.8 %	37.7 %		32.0 %	35.0 %	
Catalyst Technologies ⁽¹⁾	29.9 %	40.7 %		30.8 %	36.4 %	
Total Adjusted EBITDA Margin⁽¹⁾	<u>29.0 %</u>	<u>34.7 %</u>		<u>28.4 %</u>	<u>30.7 %</u>	

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

Appendix Table A-4: Adjusted Free Cash Flow

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
	(in millions)			
Net cash provided by operating activities, continuing operations	\$ 56.5	\$ 55.1	\$ 109.3	\$ 92.3
Net cash used in operating activities, discontinued operations	—	(19.5)	—	(7.4)
Net cash provided by operating activities	56.5	35.6	109.3	84.9
Less:				
Purchases of property, plant and equipment, continuing operations	(13.7)	(16.6)	(39.5)	(44.6)
Purchases of property, plant and equipment, discontinued operations	—	(9.0)	—	(31.0)
Purchases of property, plant and equipment ⁽¹⁾	(13.7)	(25.6)	(39.5)	(75.6)
Free cash flow	42.8	10.0	69.8	9.3
Adjustments to free cash flow:				
Proceeds from sale of assets	—	—	—	0.3
Net interest proceeds on currency swaps	—	—	—	2.3
Cash paid for costs related to segment disposals	0.7	19.3	14.8	40.3
Cash paid for debt financing costs included in cash from operating activities	—	5.7	—	5.7
Adjusted free cash flow ⁽²⁾	\$ 43.5	\$ 35.0	\$ 84.6	\$ 57.9
Net cash (used in) provided by investing activities ⁽³⁾	\$ (14.1)	\$ 954.0	\$ (43.6)	\$ 852.0
Net cash used in financing activities	\$ (70.7)	\$ (958.5)	\$ (82.6)	\$ (964.6)

(1) Excludes the Company's proportionate 50% share of capital expenditures from the Zeolyst Joint Venture.

(2) We define adjusted free cash flow as net cash provided by operating activities less purchases of property, plant and equipment, adjusted for proceeds from sale of assets, net interest proceeds on swaps designated as net investment hedges, the cash paid for segment disposals and cash paid for debt financing costs included in cash from operating activities. Adjusted free cash flow is a non-GAAP financial measure that we believe will enhance a prospective investor's understanding of our ability to generate additional cash from operations and is an important financial measure for use in evaluating our financial performance. Our presentation of adjusted free cash flow is not intended to replace, and should not be considered superior to, the presentation of our net cash provided by operating activities determined in accordance with GAAP. Additionally, our definition of adjusted free cash flow is limited, in that it does not represent residual cash flows available for discretionary expenditures, due to the fact that the measure does not deduct the payments required for debt service and other contractual obligations or payments made for business acquisitions. Therefore, we believe it is important to view adjusted free cash flow as a measure that provides supplemental information to our consolidated statements of cash flows. You should not consider adjusted free cash flow in isolation or as an alternative to the presentation of our financial results in accordance with GAAP. The presentation of adjusted free cash flow may differ from similar measures reported by other companies and may not be comparable to other similarly titled measures.

(3) Net cash used in investing activities includes purchases of property, plant and equipment, proceeds from sale of assets and net interest proceeds on swaps designated as net investment hedges, which are also included in our computation of adjusted free cash flow.