Exhibit 99.1

Ecovyst Reports Fourth Quarter and Full Year 2024 Results

MALVERN, PA, February 27, 2025 -- Ecovyst Inc. (NYSE: ECVT) ("Ecovyst" or the "Company"), a leading integrated and innovative global provider of advanced materials, specialty catalysts and services, today reported results for the fourth quarter and full year ended December 31, 2024.

Full Year 2024 Results & Highlights

- Sales of $704.5 million, compared to $691.1 million in 2023
- Net loss of $6.7 million. Net loss margin of 1.0%, with diluted net loss per share of $0.06
- Adjusted net income of $68.6 million, with Adjusted diluted income per share of $0.58
- Adjusted EBITDA of $238.2 million, with an Adjusted EBITDA margin of 29.0%
- Full year net cash from operations of $149.9 million, Adjusted Free Cash Flow of $85.5 million. Net debt leverage ratio at year end was 3.0x (given the net loss for 2024, calculation of net debt to net income ratio is not meaningful)
- Full year share repurchases of 552,081 shares or $5.0 million

Fourth Quarter 2024 Results & Highlights

- Sales of $182.0 million, compared to $172.8 million in the fourth quarter of 2023
- Net loss of $30.5 million compared to a net income of $30.0 million in the fourth quarter of 2023, with a net loss margin of 16.8% and with diluted net loss per share of $0.26
- Adjusted net income of $33.0 million with Adjusted diluted income per share of $0.28
- Adjusted EBITDA of $75.9 million, up 8.7% compared to the fourth quarter of 2023, with an Adjusted EBITDA margin of 35.3%

"Ecovyst delivered solid results for the fourth quarter of 2024, demonstrating the resilience of our core and industrial businesses in the face of continued demand softness in the global macroeconomic environment. As a result, we delivered financial results consistent with our expectations," said Kurt J. Bitting, Ecovyst's Chief Executive Officer. "Increased sales volume and positive pricing in our Ecoservices segment translated into Adjusted EBITDA of $54 million in the fourth quarter, up nearly 12% from the fourth quarter of 2023. For our Advanced Materials & Catalysts segment we saw higher sales of advanced silicas used in the production of polyethylene in our Advanced Silicas business, while sales for the Zeolyst Joint Venture were lower on the expected timing of sales of hydrocracking and other catalysts."

"We are pleased with the progress we made on our strategic and operational priorities during 2024. Looking to the future, we continued to position Ecovyst to capitalize on the growth potential for advanced plastics recycling, carbon capture and bio-catalysis. In addition, our investments in reliability initiatives in Ecoservices have already resulted in a significant improvement in operational efficiency, contributing to volume growth in 2024. We remain on track to complete the expansion of our polyethylene catalyst production capacity at our Kansas City site by the end of this year. We are confident this project, as well as the expansion of capacity at our Chem32 site, will support anticipated growth in the years to come," Bitting added.

Review of Segment Results and Business Trends

For the fourth quarter, sales were $182.0 million, up 5% compared to the fourth quarter of 2023. Net loss was $30.5 million with diluted net loss per share of $0.26 and Adjusted net income was $33.0 million with Adjusted diluted income per share of $0.28. The fourth quarter and year-end results included the impact of a non-cash impairment charge of $65 million on our investment in the Zeolyst Joint Venture, reducing the carrying value of our investment to its estimated fair value, primarily due to the demand outlook for catalyst materials used in emission control applications and the production of sustainable fuels. In May 2016, as a result of a business combination, the investment in the Zeolyst Joint Venture was increased through purchase accounting fair value adjustments. This impairment was a partial reduction to the goodwill and trade name components of the purchase accounting fair value adjustments recorded as a result of the 2016 business combination. Adjusted EBITDA was $75.9 million, up 8.7% compared to the fourth quarter of 2023, with an Adjusted EBITDA margin of 35.3%.

Ecoservices

Fourth quarter 2024 sales for Ecoservices were $148.9 million, compared to $141.4 million in the fourth quarter of 2023. The increase in sales was primarily driven by higher sales volume and favorable contract pricing for regeneration services. Adjusted EBITDA was $54.0 million, compared to $48.4 million in the fourth quarter of 2023. The increase reflects the higher sales volume and favorable contract pricing, lower turnaround costs and favorable absorption of fixed costs, partially offset by higher manufacturing and transportation costs driven by inflation.

For the year, sales were $598.3 million, compared to $584.8 million in 2023. The increase was driven by higher sales volume, for virgin sulfuric acid and regeneration services, and favorable contract pricing for regeneration services. The sales contribution was partially offset by lower average selling prices driven by the pass-through of lower costs, including lower sulfur costs of approximately $7 million. Adjusted EBITDA was $200.3 million, compared to $200.0 million in 2023, with the benefit of higher sales volume and favorable contract pricing largely offset by higher transportation costs and planned maintenance costs, inclusive of turnarounds, as well as unfavorable net pricing, reflecting the timing and contractual pass-through of certain costs, including energy and other indexed costs.

Advanced Materials & Catalysts

During the fourth quarter of 2024, Advanced Silicas sales were $33.1 million, up $1.7 million compared to the year-ago quarter, driven primarily by higher sales of advanced silicas used for the production of polyethylene. Our proportionate 50% share of sales for the Zeolyst Joint Venture sales was $33.1 million, compared to $52.8 million in the prior-year quarter, primarily reflecting the timing of hydrocracking catalyst sales. Fourth quarter of 2024 Adjusted EBITDA for Advanced Materials & Catalysts, which includes the 50% proportionate share of the Zeolyst Joint Venture, was $27.9 million up $0.7 million compared to the year-ago quarter, with the increase reflecting higher sales volume in Advanced Silicas, favorable absorption of fixed costs and cost savings within the Zeolyst Joint Venture, largely offset by lower sales within the Zeolyst Joint Venture.

For the year, Advanced Silicas sales were $106.2 million, compared to $106.3 million in 2023. The change reflects higher sales for finished polyethylene catalysts and niche custom catalysts, offset by lower sales of polyethylene catalyst supports. Our proportionate 50% share of Zeolyst Joint Venture sales was $116.5 million, compared to $156.5 million in the prior year. The decrease reflects lower sales for hydrocracking and emission control catalysts and lower sales of catalysts used in the production of sustainable fuels. Adjusted EBITDA for Advanced Materials & Catalysts of $64.7 million was down 21.0%, with the decrease primarily due to lower sales volume within the Zeolyst Joint Venture.

Cash Flows and Balance Sheet

Cash flows from operating activities was $149.9 million for the year ended December 31, 2024, compared to $137.6 million for the year ended December 31, 2023. The increase reflects higher dividends from the Zeolyst Joint Venture partially offset by lower earnings, higher cash taxes and unfavorable changes in working capital. At December 31, 2024, the Company had cash and cash equivalents of $146.0 million, total gross debt of $870.8 million and availability under the ABL facility of $75.2 million, after giving effect to $3.3 million of outstanding letters of credit and no outstanding borrowings under the facility, for total available liquidity of $221.2 million. In light of the net loss reported for the twelve months ended December 31, 2024, calculation of a net debt to net income ratio is not meaningful, and the net debt leverage ratio was 3.0x.

2025 Financial Outlook

We remain cautious about the near-term outlook for global macroeconomic activity. However, we expect demand for our regeneration services business will remain positive in 2025, and we expect favorable demand for virgin sulfuric acid sales into mining and industrial applications and continued demand growth in catalyst activation for Chem32. While our longer-term outlook for polyethylene catalyst sales remains positive, supported by customer commitments for the ongoing expansion of polyethylene production capacity at our Kansas City site, the near-term demand outlook remains uncertain due to softer global demand projections. Within the Zeolyst Joint Venture, we expect sales of hydrocracking catalysts to increase moderately as we continue to capitalize on the enthusiasm for our MACH offering. We believe we remain well positioned to address growth opportunities as they arise in 2025 and we plan to continue to advance our technology offerings to position Ecovyst to serve the growth potential presented by advanced plastics recycling, bio-catalysis, carbon capture and sustainable aviation fuel.

The Company's guidance for full year 2025 is as follows:

- Sales of $755 million to $815 million[1]
- Sales of $115 million to $130 million for proportionate 50% share of Zeolyst Joint Venture, which is excluded from GAAP Sales
- Adjusted EBITDA[2] of $238 million to $258 million
- Adjusted Free Cash Flow[2] of $60 million to $80 million
- Capital expenditures of $80 million to $90 million
- Interest expense of $47 million to $53 million
- Depreciation & Amortization
  - Ecovyst - $87 million to $93 million
  - Zeolyst J.V. - $12 million to $14 million
- Effective tax rate in the mid 20% range
- Adjusted Net Income[2] of $58 million to $85 million, with Adjusted Diluted Income[2] per share of $0.50 to $0.70

[1]Sales outlook for 2025 assumes higher average sulfur prices compared to 2024 and higher projected pass-through of sulfur costs of approximately $35 million.

[2]In reliance upon the unreasonable efforts exemption provided under Item 10(e)(1)(i)(B) of Regulation S-K, 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 net cash provided by operating activities 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. Because this information is uncertain, the Company is unable to address the probable significance of the unavailable information, which could be material to future results.

In December 2024, the Company announced that its Board of Directors has launched a strategic review of our Advanced Materials & Catalysts segment with the goal of maximizing long-term stockholder value. The review remains underway and the Company expects to complete it in mid-2025. The strategic review process is subject to unknown variables including the costs, structure, terms and timing thereof, and the strategic review process may not result in any transaction or other outcome. The Company does not intend to make any further public comment regarding the strategic review until it has been completed or the Company determines that disclosure is required or beneficial.

Stock Repurchase Authorization

In April 2022, the Company's Board of Directors approved a stock repurchase program authorizing the repurchase of up to $450 million of the Company's outstanding common stock over the next four years. As of December 31, 2024, $229.6 million was available for share repurchases under the program.

During the quarter ended December 31, 2024 the Company did not repurchase any of its common stock. During the year ended December 31, 2024, the Company repurchased 552,081 shares of its common stock on the open market at an average price of $9.05 per share, for a total cost of $5.0 million, excluding brokerage commissions and accrued excise tax.

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 and may be conducted through negotiated transactions, open market repurchases or other means, including through Rule 10b-18 trading plans or accelerated share repurchases. The repurchase program does not obligate the Company to acquire any number of shares in any specific period, or at all, and the repurchase program may be amended, suspended or discontinued at any time at the Company's discretion.

Conference Call and Webcast Details

On Thursday, February 27, 2025, Ecovyst management will review the fourth 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) 267-6316** (domestic) or
1 (203) 518-9783 (international) and use the participant code ECVTQ424.

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.

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About Ecovyst Inc.

Ecovyst Inc. and subsidiaries is a leading integrated and innovative global provider of advanced materials, specialty catalysts and services. We support customers globally through our strategically located network of manufacturing facilities. We believe that our products 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 high quality and high strength virgin sulfuric acid for industrial and mining applications. Ecoservices also provides chemical waste handling and treatment services, as well as ex-situ catalyst activation services for the refining and petrochemical industry. **Advanced Materials & Catalysts,** through its Advanced Silicas business, provides finished silica catalysts, catalyst supports and functionalized silicas necessary to produce high performing plastics and to enable sustainable chemistry, and through its Zeolyst Joint Venture, innovates and supplies specialty zeolites used in catalysts that support the production of sustainable fuels, remove nitrogen oxides from diesel engine emissions and that are broadly applied in refining and petrochemical 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, Free Cash Flow, Adjusted Free Cash Flow, Adjusted diluted income per share, net debt to net income ratio and net debt 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 attached appendix.

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 its proportionate share of sales from the Zeolyst Joint Venture accounted for using the equity method as revenue and such sales are not consolidated within its results of operations. However, Adjusted EBITDA for the Company's Advanced Materials & Catalysts segment reflects the Company's 50% portion of the earnings from the Zeolyst Joint Venture that have been recorded as equity in net income 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, capital expenditure projects, liquidity, prospects, growth, strategies, capital allocation program (including the stock repurchase program), product and service offerings, expected demand trends, the timing and outcome, if any, of the Company's strategic review process for its Advanced Materials & Catalysts segment and our 2025 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 tariffs and trade disputes, currency exchange rates, the effects of inflation 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
CONSOLIDATED STATEMENTS OF (LOSS) INCOME
(in millions, except share and per share amounts)

	Three months ended December 31,		%	Years ended December 31,		%
	2024	2023	Change	2024	2023	Change
Sales	$ 182.0	$ 172.8	5.3 %	$ 704.5	$ 691.1	1.9 %
Cost of goods sold	128.1	125.5	2.1 %	503.0	493.2	2.0 %
Gross profit	53.9	47.3	14.0 %	201.5	197.9	1.8 %
Selling, general and administrative expenses	19.6	19.7	(0.5)%	83.9	79.2	5.9 %
Other operating expense, net	9.7	4.8	102.1 %	19.6	22.0	(10.9)%
Operating income	24.6	22.8	7.9 %	98.0	96.7	1.3 %
Equity in net (income) from affiliated companies	(12.6)	(14.3)	(11.9)%	(15.1)	(30.6)	(50.7)%
Impairment of investment in affiliated companies	65.0	—	NM	65.0	—	NM
Interest expense, net	11.8	13.9	(15.1)%	49.4	44.7	10.5 %
Debt extinguishment costs	—	—	— %	4.6	—	NM
Other (income) expense, net	(1.9)	—	NM	(0.8)	0.6	(233.3)%
(Loss) income before income taxes	(37.7)	23.2	(262.5)%	(5.1)	82.0	(106.2)%
(Benefit) provision for income taxes	(7.2)	(6.8)	5.9 %	1.6	10.8	(85.2)%
Effective tax rate	*19.1 %*	*(29.3)%*		*(32.5)%*	*13.2 %*	
Net (loss) income	$ (30.5)	$ 30.0	(201.7)%	$ (6.7)	$ 71.2	(109.4)%
Earnings per share:						
Basic (loss) earnings per share	$ (0.26)	$ 0.26		$ (0.06)	$ 0.60	
Diluted (loss) earnings per share	$ (0.26)	$ 0.26		$ (0.06)	$ 0.60	
Weighted average shares outstanding:						
Basic	116,518,933	116,116,895		116,719,437	118,367,214	
Diluted	116,518,933	117,190,747		116,719,437	119,487,709	

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

	December 31, 2024	December 31, 2023
ASSETS		
Cash and cash equivalents	$ 146.0	$ 88.4
Accounts receivable, net	77.9	81.3
Inventories, net	57.1	45.1
Derivative assets	6.5	13.4
Prepaid and other current assets	16.1	17.8
Total current assets	303.6	246.0
Investments in affiliated companies	349.3	440.2
Property, plant and equipment, net	569.3	576.9
Goodwill	404.1	404.5
Other intangible assets, net	98.4	116.6
Right-of-use lease assets	33.6	24.3
Other long-term assets	44.0	29.3
Total assets	$ 1,802.3	$ 1,837.8
LIABILITIES		
Current maturities of long-term debt	$ 8.7	$ 9.0
Accounts payable	43.9	40.2
Operating lease liabilities—current	9.3	8.2
Accrued liabilities	53.2	61.7
Total current liabilities	115.1	119.1
Long-term debt, excluding current portion	852.1	858.9
Deferred income taxes	105.4	115.8
Operating lease liabilities—noncurrent	24.2	16.0
Other long-term liabilities	5.0	22.5
Total liabilities	1,101.8	1,132.3
Commitments and contingencies		
EQUITY		
Common stock ($0.01 par); authorized shares 450,000,000; issued shares 140,872,846 and 140,774,045 on December 31, 2024 and 2023, respectively; outstanding shares 116,534,803 and 116,116,895 on December 31, 2024 and 2023, respectively	1.4	1.4
Preferred stock ($0.01 par); authorized shares 50,000,000; no shares issued or outstanding on December 31, 2024 and 2023, respectively	—	—
Additional paid-in capital	1,106.8	1,102.6
Accumulated deficit	(177.5)	(170.9)
Treasury stock, at cost; shares 24,338,043 and 24,627,150 on December 31, 2024 and 2023, respectively	(222.8)	(226.7)
Accumulated other comprehensive loss	(7.4)	(0.9)
Total equity	700.5	705.5
Total liabilities and equity	$ 1,802.3	$ 1,837.8

ECOVYST INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years ended December 31,	
	2024	2023
	(in millions)	
Cash flows from operating activities:		
Net (loss) income	$ (6.7)	$ 71.2
Adjustments to reconcile net (loss) income to net cash provided by operating activities:		
Depreciation	75.3	70.6
Amortization	14.1	14.0
Intangible asset impairment charge	3.9	—
Amortization of deferred financing costs and original issue discount	1.7	2.1
Debt extinguishment costs	0.1	—
Foreign currency exchange loss (gain)	0.3	(0.6)
Deferred income tax benefit	(7.9)	(17.1)
Net loss on asset disposals	2.4	4.1
Stock compensation	14.0	16.0
Equity in net (income) from affiliated companies	(15.1)	(30.6)
Dividends received from affiliated companies	38.0	28.0
Impairment of investment in affiliated companies	65.0	—
Other, net	(14.3)	0.6
Working capital changes that provided (used) cash:		
Receivables	3.1	(6.1)
Inventories	(11.2)	(1.4)
Prepaids and other current assets	3.4	(1.0)
Accounts payable	2.4	2.4
Accrued liabilities	(18.6)	(14.6)
Net cash provided by operating activities	149.9	137.6
Cash flows from investing activities:		
Purchases of property, plant and equipment	(69.0)	(65.3)
Investment in non-marketable equity securities	(4.5)	—
Net cash used in investing activities	(73.5)	(65.3)
Cash flows from financing activities:		
Draw down of revolving credit facilities	—	14.5
Repayments of revolving credit facilities	—	(14.5)
Issuance of long-term debt, net of original issue discount and financing fees	870.8	—
Repayments of long-term debt	(879.7)	(9.0)
Repurchases of common shares	(5.0)	(78.7)
Tax withholdings on equity award vesting	(1.2)	(3.4)
Repayments of financing obligation	(3.0)	(2.8)
Other, net	0.2	0.4
Net cash used in financing activities	(17.9)	(93.5)
Effect of exchange rate changes on cash and cash equivalents	(0.9)	(1.3)
Net change in cash and cash equivalents	57.6	(22.5)
Cash and cash equivalents at beginning of period	88.4	110.9
Cash and cash equivalents at end of period	$ 146.0	$ 88.4

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

	Three months ended December 31,		Years ended December 31,	
	2024	2023	2024	2023
	(in millions)			
Reconciliation of net (loss) income to Adjusted EBITDA				
Net (loss) income	$ (30.5)	$ 30.0	$ (6.7)	$ 71.2
(Benefit) provision for income taxes	(7.2)	(6.8)	1.6	10.8
Interest expense, net	11.8	13.9	49.4	44.7
Depreciation and amortization	22.6	22.1	89.4	84.6
EBITDA	(3.3)	59.2	133.7	211.3
Joint venture depreciation, amortization and interest[a]	3.2	3.3	13.3	13.4
Amortization of investment in affiliate step-up[b]	0.6	1.6	3.8	6.4
Impairment of investment in affiliated companies[c]	65.0	—	65.0	—
Intangible asset impairment charge	3.9	—	3.9	—
Debt extinguishment costs	—	—	4.6	—
Net loss on asset disposals[d]	1.6	0.8	2.4	4.1
Foreign currency exchange gain[e]	(0.3)	(0.9)	(0.2)	(1.3)
LIFO expense (benefit)[f]	1.0	1.0	(2.2)	3.5
Transaction and other related costs[g]	0.2	0.2	0.4	3.0
Equity-based compensation	3.5	3.4	14.0	16.0
Restructuring, integration and business optimization expenses[h]	0.1	0.3	1.0	2.7
Other[i]	0.4	0.9	(1.5)	0.8
Adjusted EBITDA	$ 75.9	$ 69.8	$ 238.2	$ 259.9

Descriptions to Ecovyst Non-GAAP Reconciliations

(a) We use Adjusted EBITDA as a performance measure to evaluate our financial results. Because our Advanced Materials & Catalysts segment reflects our 50% portion of the earnings from 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 intangible assets, including customer relationships and technical know-how.

(c) Represents fair value impairments associated with the equity affiliate investment in the Zeolyst Joint Venture. During the year ended December 31, 2024, we recognized an impairment charge on our investment in the Zeolyst Joint Venture to reduce the carrying value of our investment to its estimated fair value. This impairment was a partial reduction to the goodwill and trade name components of the purchase accounting fair value adjustments recorded as a result of a business combination of PQ Holdings Inc. and Eco Services Operations LLC in May 2016.

(d) 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.

(e) Reflects the exclusion of the foreign currency transaction gains and losses in the statements of income related to the remeasurement effects of monetary assets and liabilities, including non-permanent intercompany debt, denominated in foreign currency.

(f) Represents non-cash adjustments to the Company's LIFO reserves for certain inventories in the U.S. that are valued using the LIFO method, effectively reflecting the results as if these inventories were valued using the FIFO method, which we believe provides a means of comparison to other companies that may not use the same basis of accounting for inventories.

(g) 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.

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

(i) Other consists of adjustments for items that are not core to our ongoing business operations. These adjustments include environmental remediation and other legal costs, expenses for capital and franchise taxes, and defined benefit pension and postretirement plan (benefits) costs, for which our obligations are under plans that are frozen. Also included in this amount are adjustments to eliminate the benefit realized in cost of goods sold of the allocation of a portion of the contract manufacturing payments under the five-year agreement with the buyer of the Performance Chemicals business to the financing obligation under the failed sale-leaseback. 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 (Loss) Income and EPS to Adjusted Net Income and Adjusted EPS[1]

	Three months ended December 31,									
	2024					2023				
	Pre-tax	Tax expense (benefit)	After-tax	Per share, basic	Per share, diluted	Pre-tax	Tax expense (benefit)	After-tax	Per share, basic	Per share, diluted
	(in millions, except share and per share amounts)									
Net (loss) income	$ (37.7)	$ (7.2)	$ (30.5)	$ (0.26)	$ (0.26)	$ 23.2	$ (6.8)	$ 30.0	$ 0.26	$ 0.26
Amortization of investment in affiliate step-up[b]	0.6	0.1	0.5	—	—	1.6	0.3	1.3	0.01	0.01
Impairment of investment in affiliated companies[c]	65.0	0.5	64.5	0.55	0.55	—	—	—	—	—
Intangible asset impairment charge	3.9	1.0	2.9	0.02	0.02	—	—	—	—	—
Net loss on asset disposals[d]	1.6	0.5	1.1	0.01	0.01	0.8	0.1	0.7	0.01	0.01
Foreign currency exchange gain[e]	(0.3)	(0.1)	(0.2)	—	—	(0.9)	(0.2)	(0.7)	(0.01)	(0.01)
LIFO expense[f]	1.0	0.2	0.8	0.01	0.01	1.0	0.2	0.8	0.01	0.01
Transaction and other related costs[g]	0.2	—	0.2	—	—	0.2	—	0.2	—	—
Equity-based compensation	3.5	0.8	2.7	0.02	0.02	3.4	0.3	3.1	0.03	0.03
Restructuring, integration and business optimization expenses[h]	0.1	—	0.1	—	—	0.3	0.1	0.2	—	—
Other[i]	0.4	0.1	0.3	0.01	0.01	0.9	0.2	0.7	—	—
Adjusted Net Income, including impact of valuation allowance release and changes in uncertain tax positions release	38.3	(4.1)	42.4	0.36	0.36	30.5	(5.8)	36.3	0.31	0.31
Impact of valuation allowance release[2]	—	—	—	—	—	—	10.2	(10.2)	(0.09)	(0.09)
Changes in uncertain tax positions release[3]	—	9.4	(9.4)	(0.08)	(0.08)	—	—	—	—	—
Adjusted Net Income[1]	$ 38.3	$ 5.3	$ 33.0	$ 0.28	$ 0.28	$ 30.5	$ 4.4	$ 26.1	$ 0.22	$ 0.22
Weighted average shares outstanding				116,518,933	117,515,453				116,116,895	117,190,747

	Years ended December 31,									
	2024					2023				
	Pre-tax	Tax expense (benefit)	After-tax	Per share, basic	Per share, diluted	Pre-tax	Tax expense (benefit)	After-tax	Per share, basic	Per share, diluted
	(in millions, except share and per share amounts)									
Net (loss) income	$ (5.1)	$ 1.6	$ (6.7)	$ (0.06)	$ (0.06)	$ 82.0	$ 10.8	$ 71.2	$ 0.60	$ 0.60
Amortization of investment in affiliate step-up[b]	3.8	1.0	2.8	0.02	0.02	6.4	1.6	4.8	0.04	0.04
Impairment of investment in affiliated companies[c]	65.0	0.5	64.5	0.55	0.55	—	—	—	—	—
Intangible asset impairment charge	3.9	1.0	2.9	0.02	0.02	—	—	—	—	—
Debt extinguishment costs	4.6	1.2	3.4	0.03	0.03	—	—	—	—	—
Net loss on asset disposals[d]	2.4	0.6	1.8	0.02	0.01	4.1	1.0	3.1	0.03	0.03
Foreign currency exchange gain[e]	(0.2)	(0.1)	(0.1)	—	—	(1.3)	(0.3)	(1.0)	(0.01)	(0.01)
LIFO (benefit) expense[f]	(2.2)	(0.6)	(1.6)	(0.01)	(0.01)	3.5	0.9	2.6	0.02	0.02
Transaction and other related costs[g]	0.4	0.1	0.3	—	—	3.0	0.8	2.2	0.02	0.02
Equity-based compensation	14.0	3.0	11.0	0.09	0.09	16.0	1.5	14.5	0.12	0.12
Restructuring, integration and business optimization expenses[h]	1.0	0.3	0.7	0.01	0.01	2.7	0.7	2.0	0.02	0.02
Other[i]	(1.5)	(0.5)	(1.0)	—	—	0.8	0.2	0.6	0.01	—
Adjusted Net Income, including impact of valuation allowance release and changes in uncertain tax positions release	86.1	8.1	78.0	0.67	0.66	117.2	17.2	100.0	0.85	0.84
Impact of valuation allowance release[2]	—	—	—	—	—	—	10.2	(10.2)	(0.09)	(0.09)
Changes in uncertain tax positions release[3]	—	9.4	(9.4)	(0.08)	(0.08)	—	—	—	—	—
Adjusted Net Income[1]	$ 86.1	$ 17.5	$ 68.6	$ 0.59	$ 0.58	$ 117.2	$ 27.4	$ 89.8	$ 0.76	$ 0.75
Weighted average shares outstanding				116,719,437	117,447,438				118,367,214	119,487,709

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

(1) We define Adjusted Net Income as net (loss) income adjusted for non-operating income or expense and the impact of certain non-cash or other items that are included in net (loss) 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 (loss) income or Adjusted Net Income as defined by other companies.

(2) Represents the tax impact of the state tax credit valuation allowance release. Item is not expected to be recurring.

(3) Represents the tax impact of previously net unrecognized tax benefits, excluding interest and penalties, primarily due to the expiration of statutes of limitations.

The adjustments to net income are shown net of applicable tax rates of 25.3% and 25.4% for the years ended December 31, 2024 and 2023, respectively, except for equity-based compensation and the impairment of investment in affiliated companies. The tax effect on equity-based compensation is derived by removing the tax effect of any equity-based compensation expense disallowed as a result of its inclusion within IRC Sec. 162(m) and adding the tax effect of equity-based compensation shortfall recorded as a discrete item. The tax effect on the impairment of investment in affiliated companies is derived by removing the tax impact of the non-deductible component specific to goodwill.

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

	Three months ended December 31,			Years ended December 31,		
	2024	2023	% Change	2024	2023	% Change
Sales:						
Ecoservices	$ 148.9	$ 141.4	5.3 %	$ 598.3	$ 584.8	2.3 %
Advanced Materials & Catalysts[(1)]	33.1	31.4	5.4 %	106.2	106.3	(0.1)%
Total sales	$ 182.0	$ 172.8	5.3 %	$ 704.5	$ 691.1	1.9 %
Zeolyst Joint Venture sales	$ 33.1	$ 52.8	(37.3)%	$ 116.5	$ 156.5	(25.6)%
Adjusted EBITDA:						
Ecoservices	$ 54.0	$ 48.4	11.6 %	$ 200.3	$ 200.0	0.2 %
Advanced Materials & Catalysts	27.9	27.2	2.6 %	64.7	81.9	(21.0)%
Unallocated corporate expenses	(6.0)	(5.8)	3.4 %	(26.8)	(22.0)	21.8 %
Total Adjusted EBITDA	$ 75.9	$ 69.8	8.7 %	$ 238.2	$ 259.9	(8.3)%
Adjusted EBITDA Margin:						
Ecoservices	36.3 %	34.2 %		33.5 %	34.2 %	
Advanced Materials & Catalysts[(2)]	42.1 %	32.3 %		29.1 %	31.2 %	
Total Adjusted EBITDA Margin[(2)]	35.3 %	30.9 %		29.0 %	30.7 %	

(1) Represents GAAP sales for the Advanced Silicas business; Excludes our proportionate 50% share of sales from the Zeolyst Joint Venture.

(2) Adjusted EBITDA Margin calculation reflects our proportionate 50% share of sales from the Zeolyst Joint Venture.

Appendix Table A-4: Adjusted Free Cash Flow

	Years ended December 31,	
	2024	2023
	(in millions)	
Net cash provided by operating activities	$ 149.9	$ 137.6
Less:		
Purchases of property, plant and equipment[1]	(69.0)	(65.3)
Free Cash Flow[2]	$ 80.9	$ 72.3
Adjustments to Free Cash Flow:		
Cash paid for debt financing costs included in cash from operating activities	4.6	—
Adjusted Free Cash Flow[2]	$ 85.5	$ 72.3
Net cash used in investing activities[3]	$ (73.5)	$ (65.3)
Net cash used in financing activities	$ (17.9)	$ (93.5)

(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 cash flows that are unusual in nature and/or infrequent in occurrence that neither relate to our core business nor reflect the liquidity of our underlying business. Historically these adjustments include proceeds from the 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, which is also included in our computation of Adjusted Free Cash Flow.

Appendix Table A-5: Net Debt Leverage Ratio

	December 31,	
	2024	2023
	(in millions, except ratios)	
Total debt	$ 870.8	$ 877.5
Less:		
Cash and cash equivalents	146.0	88.4
Net debt	$ 724.8	$ 789.1
Net (loss) income	$ (6.7)	$ 71.2
Adjusted EBITDA[(1)]	$ 238.2	$ 259.9
Net Debt to Net Income Ratio	NM	11.1 x
Net Debt Leverage Ratio	3.0 x	3.0 x

(1) Refer to Appendix Table A-1: Reconciliation of Net Income to Adjusted EBITDA for the reconciliation to the most comparable GAAP financial measure.