

CHEMICAL INSIGHTS



2021 Recap and 2022 Outlook - Global Chemicals and Materials M&A

Despite ongoing uncertainty, the robust M&A environment of 2021 continues into the new year

Following record M&A activity in the chemicals & materials industry in 2021, we discuss our expectation on how this momentum will carry into 2022 despite uncertainty driven by inflation, stock market volatility, supply chain disruptions, and continued COVID-19 impacts on operations. We also provide commentary on how buyers & sellers are navigating these dynamics in M&A processes and share our views on how bullish buyer and seller sentiment are likely to drive strong M&A activity in 2022.

2021 Recap – Industry-Wide M&A Activity Reaches Record Levels

Grace Matthews' Winter 2021 Chemical Newsletter, which we published in January 2021, outlined our confidence and optimism surrounding M&A activity in the chemicals & materials industry in the year ahead. Our tagline in the publication read: 'Catching Our Breath Heading Into 2021'. On the horizon, we saw the underpinnings for a "perfect storm" of M&A activity. Reflecting on 2021, the opportunity to catch our breath was short-lived.

Whether looking at deal volume, valuations, or buyer interest from both strategic and financial acquirers, 2021 M&A activity set records and exceeded expectations. Global M&A approached \$4.2 trillion in total deal value in 2021, representing a 50%+ increase from 2020.¹ Private equity dealmaking bolstered M&A as well, with PE firms accounting for an aggregated \$1.2 trillion in transaction values in 2021, also increasing more than 50% from the year prior.² Key drivers of the strong year are generally consistent with recent periods, such as: strong, and growing, cash positions on strategic buyers' balance sheets, together with record levels of capital raised by the private equity community; liquid debt markets with lending accessible to both strategic and financial buyers coupled with historically low interest rates; and, in 2021, the prospect of meaningful tax changes motivating sellers, even though these potential tax changes now appear to be far less impactful than originally contemplated. We also saw large multinationals continue to focus on portfolio management, which contributed to an increase in the number of divestitures / carve-out transactions. Put simply, multiple factors increased both demand (buyers' appetite for acquisitions) and supply (business owners exploring sale processes), which led to a highly robust M&A environment.

¹ S&P's Capital IQ

² Pitchbook – 2021 Annual US PE Breakdown report ([Link](#))

We at Grace Matthews focus entirely on the material science and chemical industry, and these same dynamics, noted above, drove M&A activity in our sector throughout 2021. Almost paradoxically, we saw companies in our industry navigate unprecedented challenges, as virtually every client we worked with experienced some combination of surging raw material prices, freight / logistics challenges, tight labor markets, the continued impact of COVID-19, and, of course, inflation (more on this soon). The fact that a record number of transactions were completed despite these challenges speaks to the tremendous appetite in the M&A market right now.

Make no mistake—we understand it is strange to write about a strong outlook for M&A activity continuing into 2022 with the S&P dropping 5.3% in the first month of the year, supply chains remaining constrained, labor markets tightened, and inflationary pressures continuing to drive cost and margin challenges. However, barring a sweeping change in sentiment, we see both buyers and sellers eager and willing to navigate these obstacles to execute transactions. In some ways, the challenges faced by the market may actually be supporting M&A interest and engagement, as strategic buyers use acquisitions as a tool to strengthen their business—such as shoring up source(s) of supply, leveraging a talented work force, and / or expanding physical presence into new geographies.

How We Are Seeing Inflation Impact Chemicals & Materials M&A

Right now, we are commonly asked how today's inflationary environment may impact an M&A process.

Businesses have been dealing with aspects of inflation for some time now. Data supports that inflation escalated in 2021 in a big way, with one measure of inflation, the Consumer Price Index (CPI), rising 6.8% in 2021 (See Figure A). As Fiduciary Management, Inc. noted in its 2021 year-end outlook, the Federal Reserve "has only recently acknowledged that inflation is lasting longer than they expected."³ As long as inflation persists, organizations will continue to feel strains on their costs while also being challenged with passing these costs on to their customers.

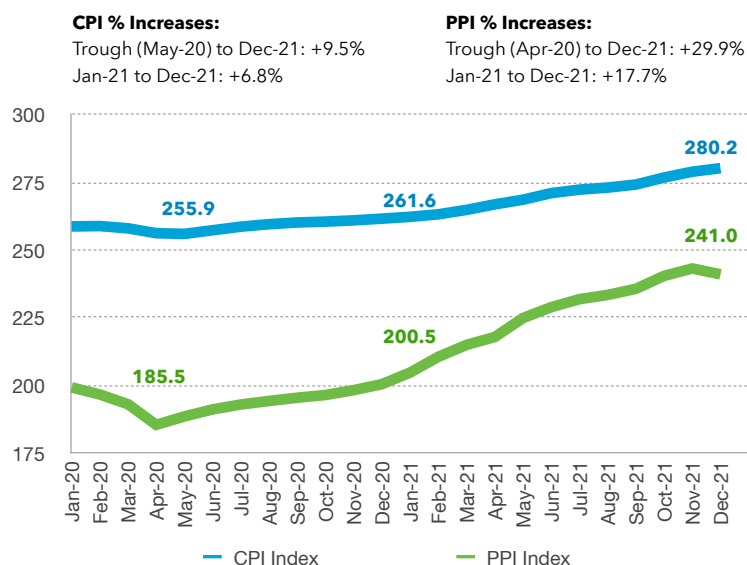
We know the chemicals & materials industry, and for that matter nearly every industry, is experiencing rising raw material and input costs, with the Producer Price Index (PPI) increasing +17.7% in 2021 (See Figure A). To manage rising raw material prices, companies have passed these increased costs, or some portion of these increased costs, on to their respective customers to maintain profits and margins. We've seen varying degrees of success in these actions—some were successful in maintaining (or enhancing) margins, while others have been subject to margin compression in this rising price

environment. We are seeing margin management navigated, perhaps most successfully, by businesses with value-added offerings and characteristics—where entrenched supply dynamics, specified-in product qualifications, and / or increased service levels can be leveraged to justify larger, fully-offsetting price increases.

Despite inflation exposure, it is important to highlight that we are still seeing strong underlying demand within our clients' businesses and, more broadly, in the chemicals & materials industry. This has provided a healthy counterweight to inflationary dynamics.

From an M&A perspective, we expect that chemicals & materials companies that sustain margins are more likely to be viewed as high value-add with "sticky" (i.e., less price sensitive) customer relationships, and / or flexible enough to navigate a challenging supply environment. In the context of a process, these companies are well-positioned to command attention from acquirers. For business owners that are experiencing margin compression while also contemplating a potential sale process, hope is not lost in terms of achieving a successful

Figure A: Monthly Consumer Price Index (CPI) and Monthly Producer Price Index (PPI)



- CPI tracks the changes in the weighted-average price of a basket of common goods and services, and is generally considered a proxy for economic inflation.
- PPI tracks the changes in the weighted-average price producers receive for their outputs.

Note: At time of publication, Jan-22 CPI indicated a 7.5% annual inflation rate, a 40 year high.

Source: U.S. Bureau of Labor Statistics

³ Source: Fiduciary Management - Investment Strategy Outlook report ([Link](#))

outcome. We expect inflationary headwinds will be thoroughly diligenced in a sale process and can be successfully navigated by effectively communicating a plan to improve margins (e.g., customer price increases, new supply arrangements) and demonstrating a return in profitability throughout the course of a process.

Recommendations for Buyers and Sellers to Successfully Navigate M&A in 2022

As we stated, we are seeing a strong start to M&A activity in 2022. Despite all the “noise,” we know buyers remain acquisitive and have record levels of capital (both debt and equity) to deploy for acquisitions.

Controlled chaos and uncertainty have become the new norm. Buyers need to identify an M&A strategy and stick to it. Successful acquirers are able to glean insights from transitory events while remaining focused on evaluating the acquisition’s strategic fit within the buyer’s long-term objectives. Sellers that can explain both how and why their businesses have performed throughout a challenging environment are well positioned to draw heightened interest in and extract incremental value from their business.

During a sale process, typical questions we are seeing buyers ask / sellers receive include:

- What is the sustainability of current revenue and margin trends?
- What are normalized or ‘run-rate’ volumes from a demand standpoint? How much visibility is there into demand for the next 3 / 6 / 9 / 12 months?
- What is the company’s exposure to raw material price increases? When and how has the business been able to pass pricing through to customers?
- How is the company managing growth and new customer acquisition in times of supplier allocations and raw material supply tightness?
- How has the company been impacted by or managed through supply chain interruptions to ensure customer demand is met and deliveries are made on-time?
- How has the company been affected by labor force disruptions? Describe any challenges related to employee turnover, recruiting / hiring, and wage pressures.

These are challenging topics to address, and the answers will vary. More broadly, we have seen the level of diligence conducted by buyers to be at an all-time high. This is, in part, due to the uncertainties and challenges in today’s market—buyers need to fully understand what they are buying, including any assumed risks to the business going forward. The other primary contributing factor is the ongoing record valuation levels, which leaves less room for error in buyers’ diligence work. Our recommendation to clients exploring a potential sale is to control what you can. Some risks are inherent in a business and are impossible to fully mitigate. Others can be mitigated, but they can take time to address. The earlier you can identify those issues and work to address them, the better positioned sellers will be entering a sale process.

Looking Ahead to 2022 - Blocking Out the Noise as Strong M&A Activity Continues

We’ve learned in the past two years to expect the unexpected, and we are certain there will be at least one broader macroeconomic event that presents a hurdle in the M&A environment in the year ahead. We’ve also learned that, despite added complexity, both buyers and sellers have found ways to navigate unprecedented circumstances to complete transactions—and we don’t see this changing in 2022.

We remain bullish on M&A activity in the chemicals & materials industry in 2022. Buyers will need to remain aggressive and choose their spots; sellers will benefit from preparing as best, and as much, as they can in advance of going to market.

Recent Grace Matthews Transaction: Chemsolv, Inc.

Chemsolv, Inc., a leading distributor of commodity and specialty chemicals based in Roanoke, Virginia, was acquired by OpenGate Capital in December 2021. Grace Matthews advised Chemsolv on the transaction.

Founded in 1979, Chemsolv is a diversified distributor offering more than 1,000 chemicals including solvents, plasticizers, coolants, lubricants, surfactants, diesel exhaust fluid, additives, and other products. Its customers participate in a variety of end markets such as paints and coatings, construction, energy, chemical intermediates, and transportation. Chemsolv also provides a number of value-added services including solvent recovery, blending, packaging, and formulation support.

Chemsolv will continue to operate under the leadership of its current President, Jamie Austin. "Today represents an important point in Chemsolv's 40+ year history through our partnership with OpenGate," said Austin. "Our business is well-positioned for growth and expansion, and we're looking forward to continuing to serve our customer base."

"Chemsolv's entrepreneurial mindset, market expertise and reliability has earned it a strong reputation with its suppliers and customers," commented Eric Sabelhaus, Director at Grace Matthews. "We look forward to their continued growth and success in partnership with the team at OpenGate."



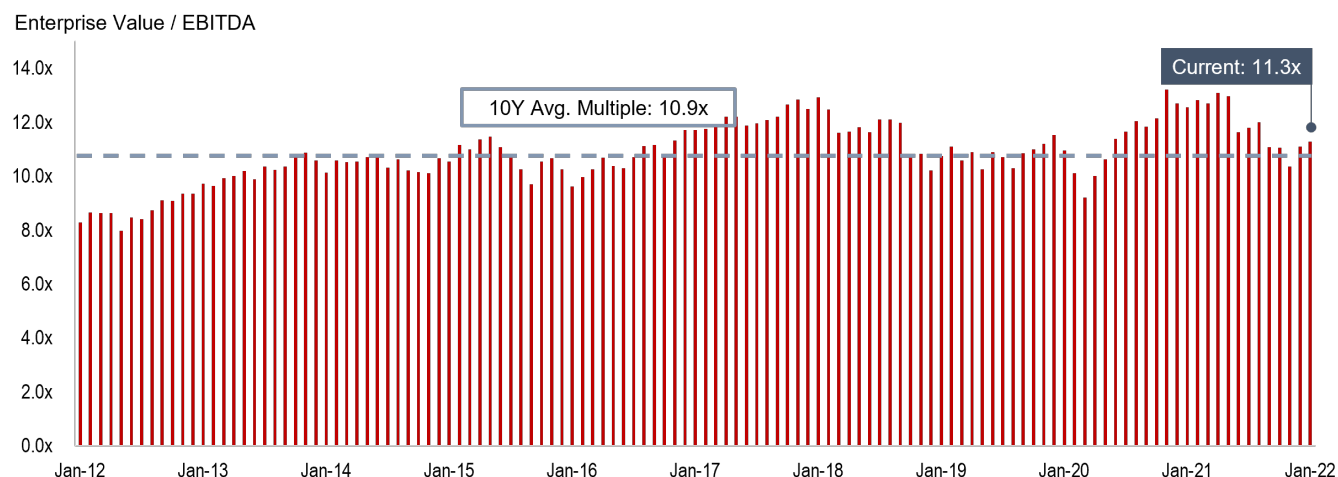
Additional Grace Matthews 2021 Transactions

As mentioned above, the M&A market was strong in 2021, and activity at Grace Matthews was no different. Below are some of the transactions completed or announced by Grace Matthews in 2021.

 <p>has been acquired by Wind Point Partners' portfolio company</p> 	 <p>has been acquired by</p> 	 <p>through its subsidiary, GEO Specialty Chemicals, has sold its DMPA business to</p> 	 <p>has entered into a definitive agreement to acquire the kaolin minerals business of</p> 
 <p>a portfolio company of Audax Private Equity has been acquired by</p> 	 <p>has been recapitalized by</p> 	 <p>through its subsidiary, Evans Chemetics, has sold its Thioester Business to</p> 	 <p>has sold certain assets to</p> 

*Select confidential transactions Grace Matthews advised on are in addition to these listed above.

Grace Matthews Chemical Index: Enterprise Value / EBITDA (Last 10 Years)



Source: Grace Matthews and Capital IQ

The Grace Matthews Chemical Index tracks the Enterprise Value / EBITDA ratios ("EV / EBITDA multiples" or "EBITDA multiples") of 99 publicly traded chemical companies that span multiple sub-sectors and geographies. The Index aggregates the latest reported financial data and stock prices, and tracks valuation trends and operating metrics across different industry sectors. Index averages are equally weighted, as opposed to weighting by market capitalization.

Select Industry Transactions

Transaction values in \$US millions					
Closed Date	Acquirer / Target	Target Description	Enterprise Value (EV)	EV / Sales*	EV / EBITDA*
Pending	KaMin / BASF (Kaolin Minerals Business)	Mines and processes kaolin industrial minerals			
Pending	Cargill / Croda (Performance Technologies and Industrial Chemicals Businesses)	Manufactures industrial materials and chemicals (UK)	\$1,349	2.0x	
Pending	American Securities / Hexion	Produces adhesives and performance materials	\$3,333	1.2x	8.5x
Pending	Entegris / CMC Materials	Manufactures electronic materials	\$6,542	5.5x	18.4x
Pending	Prince International / Ferro	Manufacturer of functional coatings and color solutions	\$2,161	2.2x	12.4x
Pending	DL Chemical / Kraton	Produces specialty polymers and performance products	\$2,497	1.5x	8.6x
Pending	LANXESS / International Flavors & Fragrances (Microbial Control Business)	Provides preservation and hygiene solutions	\$1,300		9.6x
Pending	Indorama / Oxiteno	Produces ethylene oxide and its derivatives (Brazil)	\$717		
Feb-22	Westlake Chemical / Hexion (Global Epoxy Business)	Manufactures specialty resins, coatings, and composites (Netherlands)	\$1,200	0.8x	
Jan-22	H.B. Fuller / Apollo Chemicals	Manufactures liquid adhesives, sealants, coatings, and primers (UK)			
Jan-22	Nippon Paint / Cromology	Produces decorative paints (France)	\$1,322	1.7x	14.4x
Jan-22	Chemsolv / Chemisphere	Distributes industrial chemicals and solvents			
Jan-22	Perstorp / CPS Performance Materials (Di-Methylolpropionic Acid Business)	Comprises DMPA® product line			

Transaction values in \$US millions

Closed Date	Acquirer / Target	Target Description	Enterprise Value (EV)	EV / Sales*	EV / EBITDA*
Jan-22	OpenGate Capital / Chemsolv	Distributes industrial chemicals, solvents, and lubricants			
Jan-22	Indorama / Grasim Industries (Fertilizer Business)	Urea manufacturing and trading operations (India)	\$355	1.0x	
Dec-21	Dussur; Asia Green Fund; BroadPeak / Dupont (Clean Technologies Business)	Comprises sulfuric acid production and regeneration operations	\$510		
Dec-21	Sherwin-Williams / Specialty Polymers	Manufactures emulsion polymers and adhesives			
Dec-21	PTTGC / Allnex	Manufactures coatings resins (Germany)			12.2x
Dec-21	Sisecam Chemicals / Ciner Resources	Refines and supplies soda ash, sodium percarbonate, and hydrogen peroxide	\$500		
Dec-21	GEON Performance Solutions / Roscom	Manufactures and distributes flexible and rigid PVC compounds			
Dec-21	Auxo Investment Partners / Ferrovia Services	Provides vegetation management and other right of way services			
Dec-21	Reagens / Bruno Bock (Thioester Business)	Manufactures secondary antioxidants products			
Dec-21	Meridian Adhesives / Tri-Tex (Adhesives Business)	Manufactures packaging, hot-melt, paper converting, woodworking, and other adhesives (Canada)			
Dec-21	Polyventive / Tri-Tex (Surfactants & Dyes Business)	Manufactures surfactants, dyes, pigments, and water-based polymers (Canada)			
Dec-21	Givaudan / Custom Essence	Formulates natural fragrances			
Dec-21	Tilley Company / Phoenix Aromas & Essential Oils	Supplies flavor and fragrance materials			
Dec-21	Draslovka / Chemours (Mining Solutions Business)	Manufactures and produces sodium cyanide	\$521		10.0x
Dec-21	Ecolab / Purolite	Manufactures exchange media and related specialty chemicals	\$3,700	9.5x	23.1x
Dec-21	Synthos / Trinseo (Synthetic Rubber Business)	Manufactures synthetic rubber (Germany)	\$491		
Nov-21	TorQuest Partners / North West Rubber	Manufactures and distributes recycled rubber flooring solutions (Canada)			
Nov-21	Platinum Equity / Solenis	Produces specialty chemicals for water intensive industrial operations	\$5,250		
Nov-21	Artemis Capital Partners / R.M. Lucas	Manufactures construction coatings, sealants, and adhesives			
Nov-21	Materion / H.C. Starck (Electronic Materials Portfolio)	Provider of high purity tantalum thin film materials	\$380		13.0x
Oct-21	JSR / Inpria	Develops and manufactures EUV metal oxide photoresists	\$533		
Oct-21	L'Air Liquide / H2V Normandy	Produces low-carbon hydrogen (France)			
Oct-21	Westlake Chemical / Boral Industries (North American Building Products Businesses)	Manufactures vinyl roofing, siding, trim, and other building products	\$2,150	2.0x	10.5x
Oct-21	Prinova / The Ingredient House	Supplier of sweeteners, polyols, and other specialty ingredients			
Sep-21	Kerry / Niacet	Manufactures propionates, acetates, and surfactants	\$1,015	4.6x	15.4x
Sep-21	Element Solutions / Coventya	Develops specialty chemicals for surface finishing (France)	\$508	2.7x	14.5x

Note: For transactions in which a less than 100% stake is acquired, enterprise value represents the implied EV as if a 100% stake were acquired. Enterprise values also include contingent consideration.

Grace Matthews: Select Material Science and Chemical Transactions

<p>CPS PERFORMANCE MATERIALS CORP</p> <p>through its subsidiary, GEO Specialty Chemicals, has sold its DMPA business to</p> <p>Perstorp</p>	<p>KaMin PERFORMANCE MINERALS Value from the Ground Up</p> <p>has entered into a definitive agreement to acquire the kaolin minerals business of</p> <p>BASF We create chemistry</p>	<p>the ingredient house Discover the Quality within</p> <p>has been acquired by</p> <p>Prinova NAGASE Group</p>	<p>STREM</p> <p>has been acquired by Wind Point Partners' portfolio company</p> <p>ASCENSUS</p>
<p>BRUNO BOCK THIOCHEMICALS</p> <p>through its subsidiary, Evans Chemetics, has sold its Thioester Business to</p> <p>REAGENS</p>	<p>CHEMICALS CHEMSOLV SOLVENTS</p> <p>has been acquired by</p> <p>OPENGATE CAPITAL</p>	<p>Randolph PRODUCTS</p> <p>has sold certain assets to</p> <p>SHERWIN WILLIAMS</p>	<p>Ferrovia Services, LLC Vegetation Management</p> <p>has been recapitalized by</p> <p>AUXO Auxo Investment Partners</p>
<p>GABRIEL</p> <p>a portfolio company of Audax Private Equity has been acquired by</p> <p>HUNTSMAN</p>	<p>KOS USA</p> <p>has been acquired by H.I.G. Capital's portfolio company</p> <p>Recochem</p>	<p>Diamond Vogel PAINT & COATINGS</p> <p>has sold its Colorado and New Mexico store locations to</p> <p>GUIRY'S COLORSOURCE SINCE 1899 WHERE COLOR COMES FROM.</p>	<p>CUSTOM PAK PRODUCTS INCORPORATED</p> <p>has been acquired by</p> <p>PLZ AEROSCIENCE CORPORATION</p>
<p>RHEOGISTICS Advancing Rigid PVC Processing</p> <p>has been acquired by</p> <p>THE INTERNATIONAL GROUP, INC.</p>	<p>Chemours</p> <p>has sold its methylamines business to Belle Chemical Company, an affiliate of</p> <p>Cornerstone Chemical Company</p>	<p>WST</p> <p>has been acquired by</p> <p>Italmatch Chemicals</p>	<p>EPOXIES ETC.</p> <p>has been acquired by Arsenal Capital Partners' portfolio company</p> <p>Meridian Adhesives Group</p>
<p>CABOT</p> <p>has sold its Specialty Fluids business to</p> <p>SINOMINE</p>	<p>H.B. Fuller</p> <p>has divested its surfactants, thickeners and dispersants business to</p> <p>Tiarco, LLC a subsidiary of Textile Rubber & Chemical Co., Inc.</p>	<p>QUALICHEM</p> <p>has been acquired by</p> <p>Yushiro</p>	<p>ActiveMinerals INTERNATIONAL, LLC®</p> <p>has been acquired by</p> <p>GOLDEN GATE CAPITAL</p>

Grace Matthews Client Listed First

Grace Matthews Overview

Grace Matthews is recognized globally as a leader in transaction advisory services for manufacturers and distributors throughout the material science and chemical value chain. Grace Matthews' clients include privately held businesses, private equity funds, and large, multinational corporations.

Grace Matthews' practice is global in scope, and focuses on several areas: sell-side transactions and divestitures for private companies, private equity holdings, and multinational corporations; buy-side work for large public companies, major multinationals, and sponsor-backed chemical platforms; leveraged transactions and recapitalizations, strategic advisory analysis, and transaction fairness opinions. Areas of expertise include:

- Adhesives, Sealants, Tapes
- Catalysts, Petrochemicals
- Construction Chemicals, Building Products
- Contract Manufacturing, Custom Synthesis
- Distribution, Equipment, Infrastructure
- Food Ingredients, Flavors, Fragrances
- High Purity, Electronic Chemicals
- Industrial Minerals, Inorganic Chemicals
- Intermediates, Industrial Chemicals
- Lubricants, Greases, Metalworking Fluids
- Oilfield & Water Treatment Chemicals
- Paints, Coatings, Inks
- Personal Care, Soaps, Medical Materials
- Plastics, Colorants, Additives
- Tolling, Private Label Products
- Additional Chemical Sectors

Grace Matthews is a privately held investment bank with successful chemical industry transactions dating back to the early 1990s. Grace Matthews principals have completed over 200 transactions involving global corporations. Our team approach is unique in investment banking, with a combination of extensive industrial, financial and M&A experience.

Contact Our Team

John Beagle

Chairman, Co-Founder
jbeagle@gracematthews.com

Kevin Yttre

President, Managing Director
kyttre@gracematthews.com

Ben Scharff

Managing Director
bscharff@gracematthews.com

Andy Hinz

Managing Director
ahinz@gracematthews.com

Doug Mitman

Co-Founder, Senior Advisor
dmitman@gracematthews.com

Bridget Spaulding

CFO
bspaulding@gracematthews.com

Jon Glapa

Director
jglapa@gracematthews.com

Andrew Cardona

Director
acardona@gracematthews.com

Eric Sabelhaus

Director
esabelhaus@gracematthews.com

Tom Osborne

Senior Executive
tosborne@gracematthews.com

Michelle Tveten

Marketing Director
mtveten@gracematthews.com

Chris Hayes

Associate
chayes@gracematthews.com

Matt Stouder

Associate
mstouder@gracematthews.com

Courtney Browne

Analyst
cbrowne@gracematthews.com

Sam French

Analyst
sfrench@gracematthews.com

Andres Fernandes

Analyst
afernandes@gracematthews.com

Rene Kinkade

Analyst
rkinkade@gracematthews.com

Jack Chandler

Analyst
jchandler@gracematthews.com

Katie Long

Office Manager
klong@gracematthews.com

Headquarters

833 East Michigan Avenue
Suite 1420
Milwaukee, WI 53202
414.278.1120
www.gracematthews.com



Grace Matthews, Inc. (www.gracematthews.com) is an investment banking group providing merger, acquisition, and corporate finance advisory services for chemical companies both in the U.S. and internationally. Grace Matthews is global in scope and well known for its strong track record of success dating back to the early 1990s.

The information and views contained in this report were prepared by Grace Matthews, Inc. It is not a research report, as such term is defined by applicable law and regulations, and is provided for information purposes only. No part of this material may be copied or duplicated in any form or by any means, or redistributed, without Grace Matthews' prior written consent.

Copyright (c) 2022 Grace Matthews, Inc. All rights reserved. Securities are offered through GM Securities, LLC, which is indirectly owned by Grace Matthews, Inc., and a registered broker dealer and member of the [Financial Industry Regulatory Authority](#) and [Securities Investor Protection Corporation](#). Check the background of this firm on [FINRA's BrokerCheck](#).