

CHEMICAL INSIGHTS



Looking Ahead: Timing A Business Sale in Today's Environment

As we approach the end of the year, we are often asked about our outlook for next year. In this edition of <u>Chemical Insights</u>, we share our thoughts on what we are seeing in the market and what it means for M&A in 2024. The M&A environment and broader economy have had an eventful last few years, and 2023 has been no different. As we wrote in our Summer 2023 newsletter, while news headlines often skewed negative throughout 2023 (such as speculation about a looming recession), there are indications that the worst of these concerns have subsided, particularly as recent inventory destocking effects are behind us, and more companies are beginning to see signs of a return to more predictable demand patterns.

In times when the outlook is cloudy, as we experienced in 2023, there is a "flight to quality" effect, where consistently high performing and / or highly strategic businesses receive outsized attention in a sale process. Quite often, the transactions that have closed this year have met one of those two criteria. At the same time, there have been many good businesses that faced headwinds due to broader market challenges such as inventory corrections and price volatility. For this reason, many owners anticipating a near-term sale have stayed on the sidelines, waiting until they have better visibility into run-rate performance and a return to growth. At Grace Matthews, we have observed a heightened level of diligence scrutiny around forecasting and near-term performance expectations in nearly every project we have worked on this year. Preparation for this enhanced scrutiny is critical.

Despite the market challenges of 2023, we have had a busy year and are on pace to close a near-record number of transactions. Looking forward, sentiment across the overall chemicals and material science industry seems to be trending more positively, as demand trends stabilize and a bounce-back in volume is on the horizon as we enter 2024. This outlook, combined with the slowdown in M&A in 2023, is contributing to an increasing backlog of potential transactions for 2024 in what many believe will be a stronger year for the broader M&A market.

Such market dynamics beg the question we have been asked more frequently in recent months: "When is the right time to start a sale process for my business?" Clearly there are several factors to consider when answering that question. We often break it down into a two-part question: "is the <u>market</u> ready?" and "is the <u>business</u> ready?" For the former, we share several anecdotes from what we are hearing in the market and provide some data to summarize current market conditions. For the latter, much depends on the ability for the business to confidently predict customer demand and performance over the next 6-12 months. In our view, confidence in a company's forecast has become the most critical diligence topic for potential buyers and correspondingly the most relevant for sellers to achieve a successful sale.

Market Update: Challenging 2023 Market Conditions Showing Signs of Improvement

While Q3 earnings are still being released, guidance from company executives and general market sentiment indicates that for the balance of 2023, businesses will continue to be impacted by lower volumes and general macroeconomic sluggishness. However, order patterns are beginning to re-align with underlying demand, leading to expectations of improvements in profitability as we head into 2024. The following charts provide a visual representation of what we are hearing in the market from our conversations with



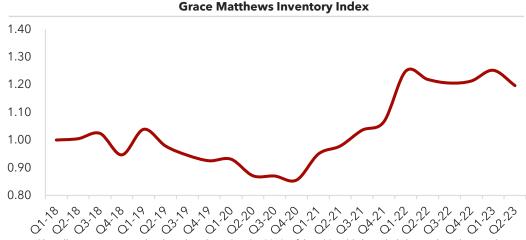
business owners, industry executives, private equity firms, lenders, and other M&A professionals. We have heard and observed that the combination of soft volumes and pricing pressure has caused earnings to decline from exceptionally strong years in 2021 and 2022. Meanwhile, 2023 has been marked by a period of uncertainty and soft demand, as inventory corrections (e.g., destocking) caused buying patterns to come out of sync with underlying demand. After an extended period of high inflation, pricing for certain products began to decline, leading to what some have called "the year of the RFQ" in 2023, with customers going back out to bid for certain key raw material inputs.

From a transactional perspective, deal activity and valuations have been hampered by higher interest rates and the previously mentioned business uncertainty. As a result, deal volumes have trended downward in recent periods. Yet this also means the backlog is growing. We are hearing of an increasing number of businesses that are in the preparation phases of sale processes that will likely launch in early 2024 as performance and visibility improves. At the same time, public companies are trading at reasonable valuations. As illustrated by the GM Chemical Index shown at the bottom of page 4, EV/EBITDA multiples are only slightly below the 10-year averages.

Inventory Levels are Beginning to Normalize

As illustrated below, inventory levels across the chemicals and material science industry increased ~30% since Q2-2020. While this does not distinguish how much is attributable to volume growth vs. inflation, both factors invariably had an impact on the rapid increase.

After a period of limited product availability due to supply chain (logistics challenges, unplanned outages, etc.), supply chain security came to the forefront of purchasing decisions, and many companies increased safety stock. As conditions improved and inflation has moderated, inventory levels peaked in Q1-2023, and are now beginning decline. to То oversimplify and approximate the timeline of events, inventory fluctuations in recent years could be summarized as follows:



Note: Chart illustrates Inventory levels (indexed to 1.0 in Q1-2018) of the 100 publicly traded chemicals and material science companies in the Grace Matthews Chemicals Index. Source: CapitallQ.

2021: Supply Shortages

2022: Inflation & Overstocking

2023: Destocking

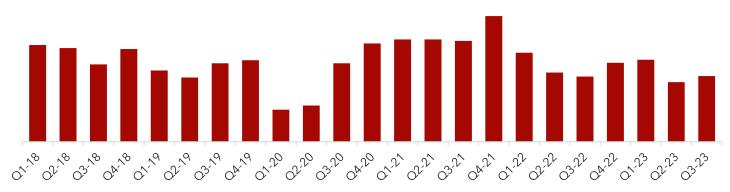
2024: Normalization (we hope)

Further inventory reductions are expected to continue throughout the second half of 2023 as pricing moderates. As they do, we anticipate that customer order patterns will better align with underlying end market demand, making it easier to forecast in the near-term. From an M&A perspective, when such alignment occurs, it fosters an environment with improved visibility into business performance and outlook, which in turn brings the confidence needed by buyers to pursue and close transactions.

Chemicals & Material Science M&A Volumes in 2023 Are Below Pre-COVID Levels

Amid the recent market uncertainty, the number of chemicals & material science M&A transactions in 2023 is down compared to pre-COVID levels (see chart at the top of the page 3). Larger deals (>\$1 billion transaction value), which tend to have greater risk tied to the capital markets and global market softness, have been more acutely impacted this year. Transaction volumes in in the lower middle market (<\$30 million EBITDA) have fared better, as M&A continues to be a focus for strategic buyers, and private equity firms have found a more amenable lender environment and/or have made up for debt financing gaps with increased equity contributions. As performance trends start to improve, we expect deal activity across the spectrum of transaction sizes to increase in 2024. While activity is unlikely to reach the levels seen in 2021, we see potential to exceed 2023 levels. On a more fundamental basis, in good and bad markets, both strategic and PE buyers must do acquisitions to satisfy their investors. Public companies need to justify growth multiples, and PE does not get paid without buying businesses.

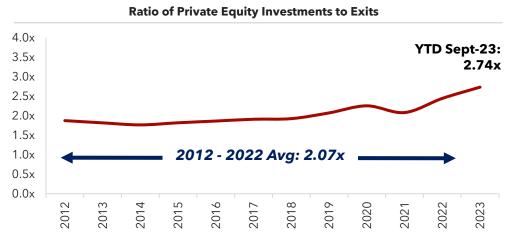
Chemicals & Material Science Quarterly Closed Transaction Count (Q1-2018 to Q3-2023)



Source: Capital IQ, Company Filings, Grace Matthews. Chart represents all closed transactions globally in the chemicals and material science industry.

The Ratio of Private Equity Investments to Exits Is At Its Highest Level In Over 10 Years

Looking beyond the chemicals & material science industry to the broader market, the private equity ("PE") community has remained acquisitive. However, exits of PE-owned businesses have slowed. As a result, private equity holdings, illustrated in the chart below as the ratio of investments to exits, have climbed to the highest level in more than 10 years. The stark upward trend seen in the last two years is a highly visible indicator of the growing backlog of PE holdings. The number of exits will therefore need to increase in the near-term as the pressure on PE funds to return capital to investors increases over time.



Source: Pitchbook. Includes announced transactions.

To summarize, the outlook for chemicals & material science M&A heading into 2024 appears to be improving. A number of signs suggest that we are setting up for a busier year ahead:

- The volatility and uncertainty seen in 2023 is starting to moderate; buying patterns should begin to more closely reflect underlying demand
- The backlog of transactions entering 2024 is growing
- Investors are adjusting to a 'higher for longer' interest rate environment; Fed officials are signaling that rate increases are nearly complete, and interest rates are expected to decline modestly over the next 12-24 months
- Finally, as businesses report earnings throughout 2024, trend lines should be improving, as comparisons to year-ago periods become more favorable due to weakness in 2023

Timing a Business Sale: Importance of Visibility into Near-Term Earnings

Amid the current M&A backdrop, we are often asked how forecasts and near-term earnings impact the potential timing of a business sale. Despite the challenges faced in the broader macroeconomic environment, we have worked with a number of businesses in the past couple of years that demonstrated strong, consistent growth. In a sale process, these companies generally achieved excellent outcomes, in part due to the "flight to quality" effect we mentioned previously. That said, since 2020, we know that accurately forecasting near-term performance has been a challenge (to say the least). Businesses have had to navigate COVID-related demand shocks, supply chain disruptions, geopolitical crises, price inflation, and inventory destocking, among ordinary day-to-day and month-to-month dynamics. Annual charts of profitability for many companies could often be described as a "sawtooth." Thus, when owners evaluate near-term forecasts in the context of contemplating a potential sale process, the natural question becomes, how much does near-term forecasting matter to buyers?



We believe that tracking to a forecast during a sale process is one of the primary catalysts in running an efficient sale process that generates options for business owners, as demonstrating momentum and credibility to potential buyers in a process is critical to success in a deal. Should a business start to underperform and consistently miss forecast expectations during a process, there is a potential to create a credibility gap with buyers who, despite performing significant diligence during a sale process, do not know the business and its underlying demand patterns nearly as well as the business owner. Conversely, laying out a near-term forecast and tracking to this on a month-to-month basis while being "out to market" helps create conviction with buyers. Recall that buyers acquire businesses based on their belief of the stream of future cash flows that company will generate. The more confidence buyers have in the outlook, the greater their ability to underwrite an acquisition (particularly if third-party financing/debt sources are involved). Grace Matthews helps its clients manage this at the start of each process by preparing a detailed projection model that can stand up to diligence scrutiny.

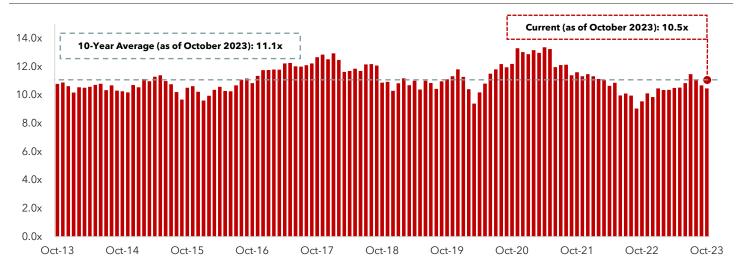
Questions business owners can ask themselves as they evaluate near-term performance can be:

- Do I have a strong grasp on run-rate performance trends, and is my company operating at that level today?
- Has there been any recent volatility? If so, what drove that, and is near-term volatility expected to be reduced or explainable?
- Do I have confidence in where volumes/demand, sales, and profitability for my top customers will be for the next several months?
- When accounting for the above, can I create a forecast that demonstrates stability and/or near-term growth?

From our recent conversations with market participants, visibility is starting to improve for many businesses. Many have weathered the storm of the last several months of uncertainty and believe that the worst of the destocking effects are behind them. Business owners have indicated that recent conversations with customers have left them with a better idea of where demand is headed in the months ahead. When advising our clients as it relates to forecasting, our recommendation is always to put in the upfront work to build a granular 'bottoms-up' projection, as the benefits of being prepared far outweigh the costs.

As confidence in business outlook returns, momentum will begin to build for these businesses to not only launch a sale process but achieve a successful outcome. All of these are contributing to what appears to be a growing backlog of M&A projects in Q4 in anticipation of launches in early 2024.

Grace Matthews Chemical Index (EV/EBITDA Multiples)



Source: Grace Matthews and Capital IQ.

The Grace Matthews Chemical Index tracks the Enterprise Value / EBITDA ratios ("EV / EBITDA multiples" or "EBITDA multiples") of 100 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	Clariant / Lucas Meyer Cosmetics	Ingredients provider for the cosmetics and personal care industry	\$810	8.1x	16.3x
Pending	SK Capital / J&K Ingredients	Manufacturer and supplier of food and beverage ingredients			
Pending	Bakelite Synthetics / LRBG Chemicals	Manufacturer of chemical resins and derivative products			
Pending	The Jordan Company / DuPont (Delrin Resins Business)	Manufacturer of acetal homopolymer for high-load mechanical applications	\$1,800		
Pending	TPG / A-Gas	Gas and chemical distributor and supplier focused on lifecycle management of refrigerant gases			
Pending	Techmer PM (Gryphon Investors) / Advanced Color Technologies	Manufactures and supplies specialty colorants and additives for plastics and synthetic fibers			
Pending	KKR / Chase Corporation	Manufacturer of industrial coatings, tapes, and protective materials	\$1,300	3.3x	13.7x
Oct-23	Roquette / Qualicaps	Manufacturer of hard capsules and pharmaceutical related equipment			
Oct-23	Integrity Partners Group (OpenGate Capital) / West Penetone (Military & Aerospace Division)	Manufacturer of environmentally friendly chemical solutions for aerospace and defense industry			
Oct-23	Fujifilm / Entegris (Electronics Chemicals Division)	Manufactures, formulates, and distributes specialty chemicals and performance materials	\$700		
Sep-23	SK Capital / Ecopol	Developer and producer of biodegradable films			
Sep-23	Aurora Capital Partners / Lubrication Engineers	Manufacturer and distributor of high-performance industrial lubricants			
Aug-23	Peak Rock Capital / Rochester Midland Corporation	Supplier of specialty chemical products & value-added services			
Aug-23	Exponent Private Equity / IFF (Flavor Specialty Ingredients Division)	Manufacturer of synthetic and natural aroma chemicals	\$220		
Aug-23	Akzo Nobel / Sherwin-Williams (China Paints Division)	Chinese decorative paints division			
Aug-23	Apollo Global Management / Univar Solutions	Global chemical and ingredients distributor and provider of value-added services	\$8,165	0.7x	8.7x
Aug-23	PureTech Scientific (Iron Path Capital) / Chemours (Glycolic Acid Business)	U.S. glycolic acid assets used in organic synthesis of ultra-high purity alpha hydroxy acid for life sciences and specialty chemicals	\$137		
Jul-23	Solenis / Diversey	Provider of hygiene, infection prevention, and cleaning solutions	\$4,516	1.6x	14.6x
Jul-23	LyondellBasell / Mepol Group	Manufacturer of recycled and technical compounds			
Jun-23	International Chemical Investors Group (ICIG) / Evonik (Cyanuric Chloride Division)	Cyanuric chloride division			
Jun-23	Gemini Coatings / Rudd Company	Manufacturer of wood coatings, stains, and finishes			
Jun-23	Arkema / Polytec PT	Develops, manufactures, and distributes specialty adhesives			
Jun-23	Univar Solutions / Kale Kimya	Specialty chemicals distributor headquartered in Turkey	\$143		
May-23	Azelis / Gillco Ingredients	Distributor of ingredients, including antimicrobials, antioxidants, chocolates, cocoa powder, among others			
May-23	PVS Chemicals / DX Group	Manufacturer of water treatment chemicals and industrial chemical products			
May-23	Kymera / Thermal Spray Solutions	Provider of high-performance thermal spray coatings			

Grace Matthews Chemical Insights



Transaction values in \$US millions									
Closed Date	Acquirer / Target	Target Description	Enterprise Value (EV)	EV / Sales	EV / EBITDA				
May-23	Cinven Group / MBCC Group (Admixtures Division)	Manufacturer of concrete admixtures, as well as other sustainable solutions for the construction industry							
May-23	Aimia / Bozzetto Group	Producer of textile, building, and performance chemicals	\$244	1.0x	7.1x				
May-23	H.B. Fuller / Beardow Adams	Manufactures hot melt adhesives for bookbinding, labeling, packaging, and other applications							
May-23	Foremark Performance Chemicals / NexGen Chemical Technologies	Provider of unique specialty chemicals for sour gas treatment in the oil & gas industry							
May-23	Canlak Coatings / Ceram-Traz	Develops and manufactures coatings and products for metal, concrete, and wood markets							
Apr-23	C&S Chemicals (Shoreline Equity Partners) / Southwest Engineers	Provider of technical services, chemical products, and equipment for industrial water treatment applications							
Apr-23	Harbour Group / Americo Chemical Products	Provider of custom-blended chemical products for metal fabrication, coil coating, plating, and wastewater treatment							
Apr-23	AMSOIL / Benz Oil	Produces and sells lubricants and solutions for various industrial applications							
Apr-23	IMCD / ACM	Distributor of minerals and chemicals							
Apr-23	Audax Private Equity / Krayden	Distributor of adhesives, sealants, coatings, soldering materials, cleaners, and solvents							
Mar-23	Hasa / Orenda Technologies	Manufactures and supplies specialty pool chemicals							
Mar-23	Vertellus / Centauri Technologies	Manufactures specialty chemicals							
Mar-23	Avery Dennison / Thermopatch	Manufactures heat seal machines, labels, direct imprint equipment, mending material, and marking devices	\$44	1.1x					
Mar-23	RelaDyne / Allied Oil & Supply	Distributor of lubricant & lubricant related products							
Mar-23	Stahl / ICP Group (Industrial Solutions Group)	Offers a comprehensive portfolio of high-performance coatings used primarily in packaging and labeling applications	\$205	1.5x					
Mar-23	RelaDyne / Sun Coast Resources	Distributor of fuels and lubricants							
Mar-23	Corteva / The Stoller Group	Develops and distributes biologicals and crop health products	\$1,200		12.0x				
Feb-23	Archroma / Huntsman Corporation (Textile Effects Division)	Manufactures dyes, chemicals and digital inks for the textile and related industries	\$718	0.9x	7.6x				
Feb-23	Surteco / Synthomer (Laminates, Films and Coated Fabrics Division)	Producer of laminates, foils and vinyl-coated fabrics for functional and decorative surfaces	\$255	1.0x	8.0x				
Feb-23	ESCO Technologies / CMT Materials	Develops, manufactures, and supplies syntactic foam and other tooling materials for the thermoforming industry	\$18	1.2x					
Jan-23	Grafe Polymer Solutions / Color Technik	Manufactures polymer-specific color and additive masterbatches for thermoplastic materials and color compounds							
Jan-23	Shrieve Chemical Company / Chem One	Distributor of industrial chemicals							
Jan-23	Wind Point Partners / Hasa	Manufactures and distributes chemicals and ancillary products used for critical sanitization and maintenance of water systems							



Grace Matthews: Select Chemical and Material Science Transactions













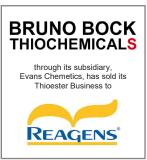




























Grace Matthews Client Listed First



Grace Matthews Overview

Grace Matthews is recognized globally as a leader in transaction advisory services for manufacturers and distributors throughout the chemical and material science 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 platforms; leveraged transactions and recapitalizations, strategic advisory analysis, and transaction fairness opinions. Areas of expertise include:

- Adhesives, Sealants, Tapes
- · Catalysts, Petrochemicals
- · Colorants, Additives
- Construction Chemicals, Building Products
- Contract Manufacturing, Custom Synthesis
- Distribution, Equipment, Infrastructure
- Environmental Services
- High Purity, Electronic Chemicals
- Industrial Minerals, Inorganic Chemicals
- Ingredients, Nutraceuticals, Flavors, Fragrances

- Intermediates, Industrial Chemicals
- Life Sciences
- Lubricants, Greases, Metalworking Fluids
- Oilfield & Water Treatment Chemicals
- · Paints, Coatings, Inks
- Personal Care, Soaps, Medical Materials
- Plastics, Composites, Molded Materials
- Tolling, Private Label Products
- Additional Chemical and Material Sectors

Grace Matthews is a privately held investment bank with successful chemical and material science 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.

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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.

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