EVOLUTION OF A LEGACY

Advancing Natural-Based Chemistry Since 1840

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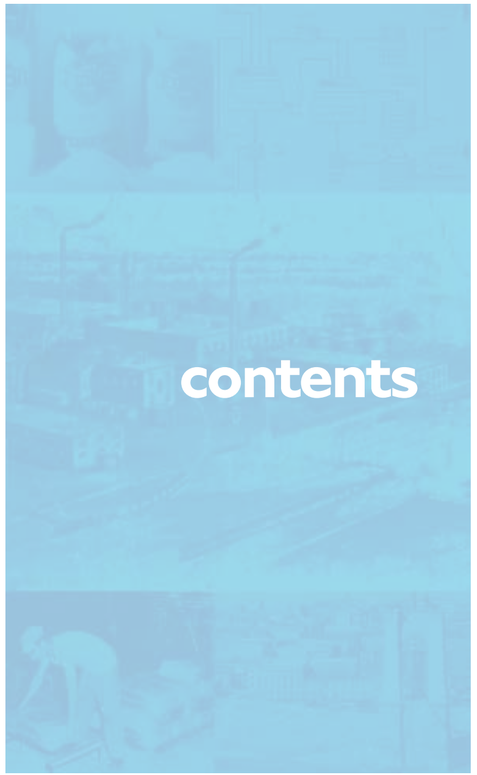


contents

RAMESH KANAGALINGAM

Group Chief Executive Officer

"...we are living through one of the most exciting periods as Emery Oleochemicals re-positions and re-defines itself as a Company that is going beyond Specialty chemicals!"

I am both humbled and honored to lead Emery Oleochemicals. This year is particularly significant as we celebrate 175 years of being in business - a very significant achievement by any standard.

I cannot help but reflect upon the contributions of my predecessors – Thomas Emery Sr., Thomas J., John J., and Jack Emery, and the others who led the company after them and before me. These are outstanding individuals and with humility and honor, I embrace the opportunity to walk in their footsteps.

It is with a degree of unusual clarity, I recall the year 2009 when I had just come on board as Group Chief Financial Officer. Almost immediately, I found myself helping to steer a global restructuring that would come to fuse three regional organizations into one truly global multinational.

The re-emergence of the 'Emery' name in 2009, gave a more profound depth in meaning to the origins of our values, culture, and commitment to people, products and the environment. And since then we have made significant achievements.

We have intensified our Research and Development efforts with the launch of a new Technical Development Center in Loxstedt and a recent expansion of the same in Cincinnati; continuing to demonstrate thought leadership in advocating sustainability beyond the borders of our immediate business reach. Premised on delivering real-world solutions through renewable products, we expanded our business platforms to include Eco-Friendly Polyols and inked strategic partnerships to strengthen our specialties product portfolio. The list is endless but suffice to say, we are living through one of the most exciting periods as Emery Oleochemicals re-positions and re-defines itself as a Company that is going beyond Specialty chemicals!

Let me end by acknowledging the most important thing we have in Emery Oleochemicals – our extraordinary group of people. Diverse and committed as they are talented - together, we are making Emery Oleochemicals a leader in our industry. I remain in awe of the talent I have inherited who strive to ensure our journey towards becoming the world leader in sustainable natural-based chemicals remains on course.

We have had an incredible 175 years. Let's look forward to the next 175 years!

JAY TAYLOR

Senior Vice President,
Chief Manufacturing Officer and
Regional Managing Director, North America

"While our company started in Cincinnati, we join with our colleagues in Malaysia and Germany in looking forward to the many new possibilities we see in our current business platforms as we write the next chapter in Emery Oleochemicals' history book."

When Thomas Emery started his company in Cincinnati in 1840, he quickly developed a reputation for quality and innovation. His business in candles and lamp oil provided light for the local region for nearly 40 years until Edison invented the incandescent lamp. As times changed, so did the business, but it remained steadfast in upholding quality, which the Emery name soon became synonymous with.

Today, our company competes in a global marketplace producing a wide range of oleochemical products derived from natural, renewable raw materials, such as palm oil, palm kernel oil, other vegetable oils, and tallow. Our products are used in a vast range of applications including soaps and detergents, cosmetics, pharmaceutical products, plastic additives, and oilfield drilling chemicals.

These are exciting times, filled with great potential for all of us. Just like those who came before us, we have the opportunity to use our superior products, technical and market knowledge, plus our individual skills to succeed.

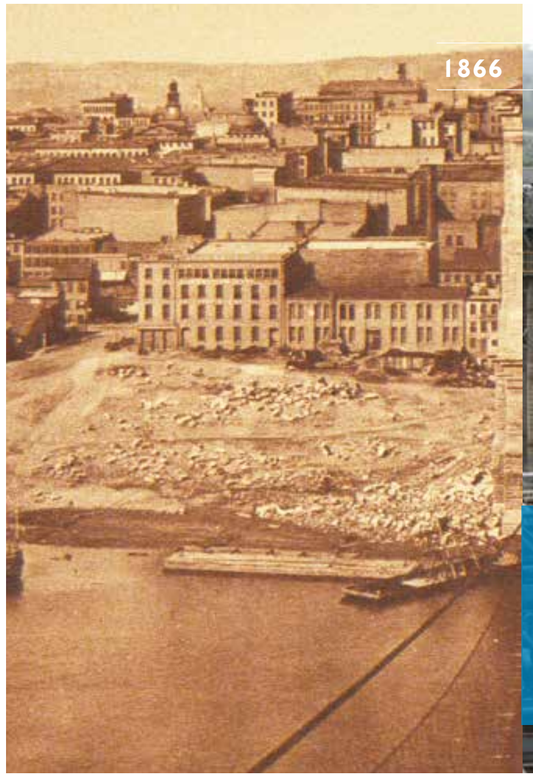
"Innovation" applies to many facets of our business, besides product development. We are constantly exploring novel ideas to improve business, manufacturing policies and processes, health and safety, and sustainability practices. In June 2015, we passed a monumental milestone for the first time at our Cincinnati site – two million hours worked with zero time lost to accidents. For Emery Oleochemicals, where employees' wellbeing takes precedence, it was a momentous achievement to say the least.

We owe a debt of gratitude to Dr. Ernst Twitchell and everyone who came before us who helped this company push the boundaries of science and technology. It is our responsibility to future generations of Emery Oleochemicals' employees and customers to continue the pioneering enthusiasm and passion for innovation started by Dr. Twitchell in the 1880s.

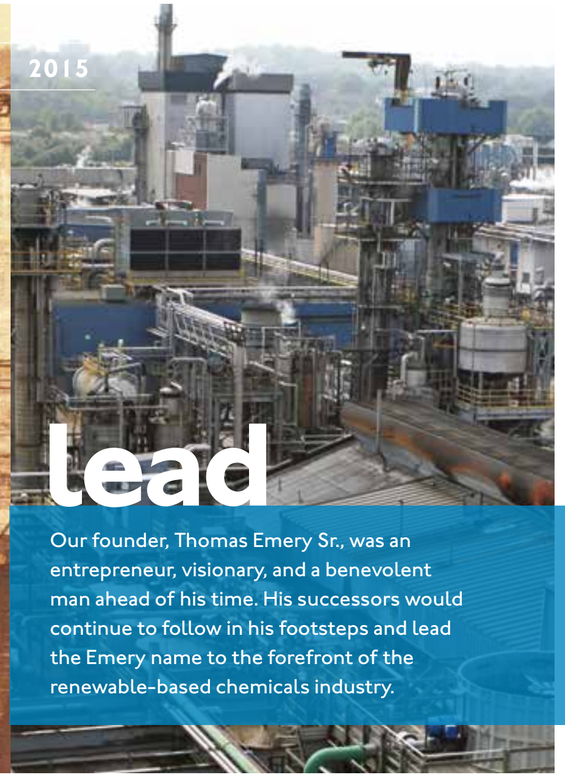
In that spirit, we are proud to celebrate the 175th Anniversary of the founding of our business. While our company started in Cincinnati, we join with our colleagues in Malaysia and Germany in looking forward to the many new possibilities we see in our current business platforms as we write the next chapter in Emery Oleochemicals' history book – and we have the responsibility to make that a bright and sustainable future.

A Company Of Significance

From just a humble storefront in Cincinnati selling tallow candles and oils for lamps, Emery Oleochemicals has become a fast-growing solutions provider in natural-based chemicals, Creating Value everywhere we go with sustainable, performance solutions designed for real-world challenges.



1866

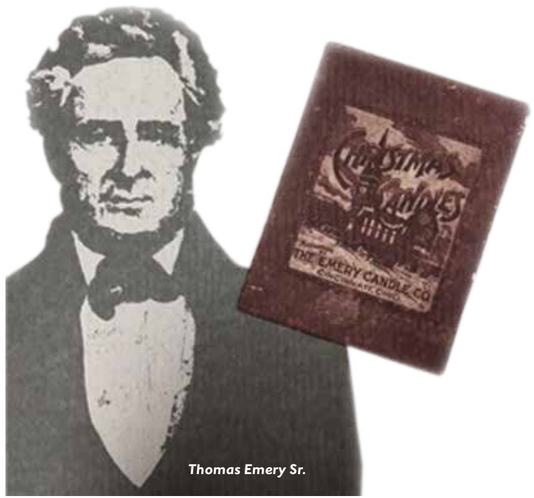


2015

lead

Our founder, Thomas Emery Sr., was an entrepreneur, visionary, and a benevolent man ahead of his time. His successors would continue to follow in his footsteps and lead the Emery name to the forefront of the renewable-based chemicals industry.

Global business and philanthropy began with three generations of Emerys…



Thomas Emery Sr.

The enterprising **Thomas Emery Sr.** was a grocer, wine and hop merchant in Cincinnati, as well as an 'estate and money' agent. The Panic of 1837 would close down many businesses, including Emery's, and left him with a mountain of debt. The recession was followed by a period of economic expansion with prices of land and cotton rising sharply in these years. The origins of this boom had many causes, both domestic and international. It was against this backdrop that the entrepreneurial Emery picked himself up again and began looking for new opportunities.

He saw that copious amounts of lard were discarded by the meat packing factories, at the time a booming industry, centered in Cincinnati. Emery would procure the leftover lard and convert it into oil for lamps and candles, the two products undeniably responsible for the future financial empire of Emery's two sons, **Thomas J. and John J.**

Emery would procure the leftover lard and convert it into oil for lamps and candles

Thomas J. Emery

Thomas Emery Sr.

John J. Emery

The unwritten motto of Emery & Sons :

"Buy at best price for cash, and live up to representations."

Cincinnati (1866)

In 1853, city directories carried the first mention of the oldest son, Thomas J. – already a clerk in his father's factory. Styled "Thomas Emery and Son" in 1856, it was a business that owed its early prosperity to candle making. Following Thomas Emery Sr.'s passing in 1857, the brothers' growing ventures in real estate and housing *(a partnership which would come to include the third son, J. Howard)* would prosper throughout the nineteenth century and well into the twentieth as "Thomas Emery's Sons" (formed in 1859). The city of Cincinnati was also to prosper during this time, as the nation's center for whiskey and hog markets, both dependent on corn, a major agricultural crop of the fertile farmlands both north and south of the Ohio River.

Right about the time Thomas Edison's incandescent electric lamp was granted a patent in January 1880, the Emery family was already involved in fatty acid research. In 1872, the company's accounting ledger would chronicle the "purchase of four barrels of acid bottoms – for experimental purposes."

Commitment to expanding production methods took a significant turn with the hiring of the firm's first full-time chemist, Dr. Ernst Twitchell, in 1886. The company was known already for its successful manufacturing of sturdier candles, Elaine oil *(oleic acid)* and sweetwater *(glycerine)* for soap making and wool yarn lubrication use – a business environment that could have additionally appealed to Dr. Twitchell's love for research.

The Emery family, however, with a keen eye for advantageous land and building purchases, focused on growing their real estate business – therefore leaving daily operations of a profitable, global chemical business to be managed by others. And did it grow!

In 1872, the company's accounting ledger would chronicle the "purchase of four barrels of acid bottoms – for experimental purposes.

Did You Know?

The current Emery Oleochemicals 8.9-acre site in St.Bernard (along Mill Creek) was established in 1885 by the Emery brothers and resides alongside the railroad tracks, across from another long-respected Cincinnati-based company, Procter & Gamble.

Early drawing of Emery Candle Company's site in St. Bernard, Ohio

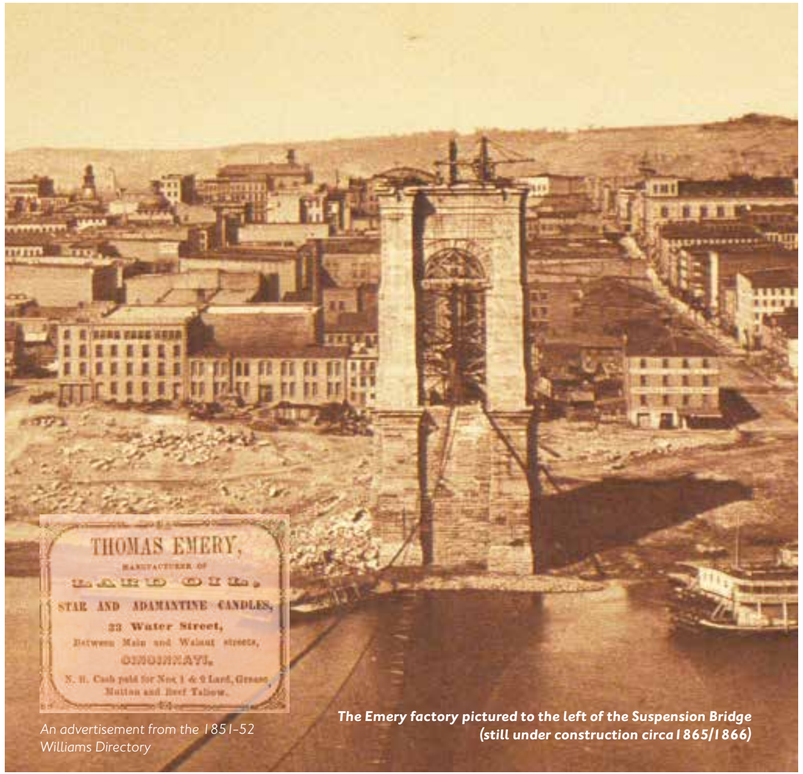
Emery's original location (1840)

Current Cincinnati location taken in 1928

Did You Know?

- *The success of the dripless candles combined with Emery's real estate business meant that he could repay his creditors from twenty years earlier, with interest!*

Tallow candles (dripless candle made from stearic acid)



An advertisement from the 1851-52 Williams Directory

The Emery factory pictured to the left of the Suspension Bridge (still under construction circa 1865/1866)

Emery brand seal

Did You Know?

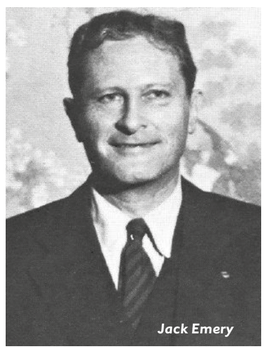
- *The Cincinnati Zoo was close to being shut down in 1916, but Mary M. Emery's contribution allowed it to carry on, prosper and to eventually be procured by the City of Cincinnati. Today, the Cincinnati Zoo & Botanical Garden is the second oldest zoo in the United States.*
- *Emery Oleochemicals continues her commitment to the Zoo through yearly donations as part of 'adopting' the Sumatran Rhino, the Malayan Tiger, and the Indian Elephant.*

Mary M. Emery

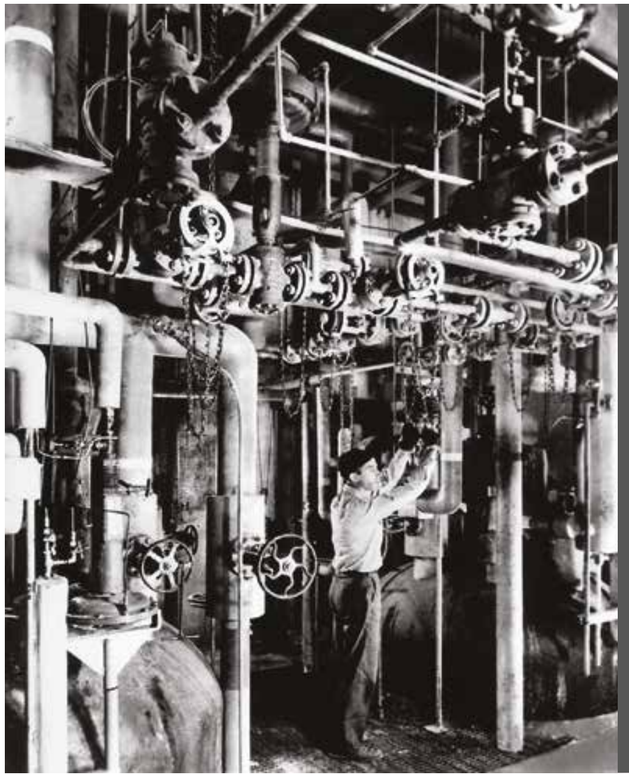
In 1900, Thomas J. stated in a newspaper interview that the ***"candle business in Europe was good, and we sell more candles in Germany than in the state of Ohio".*** The Emery Candle Company, as it was known during this time, had customers that included established woolen mills on the Atlantic Coast as it controlled 75% of the wool lubricants business; and settlers and U.S Calvary on the western frontier. Cincinnati was also making its mark as one of the fastest-growing cities in America.

At the same time, Thomas J.'s wife, Mary M. Emery began philanthropic work devoting her time towards her "fellow citizens", with her spirit of generosity most profoundly seen in the planned community of Mariemont. History will later come to remember her as Cincinnati's "most important philanthropist".

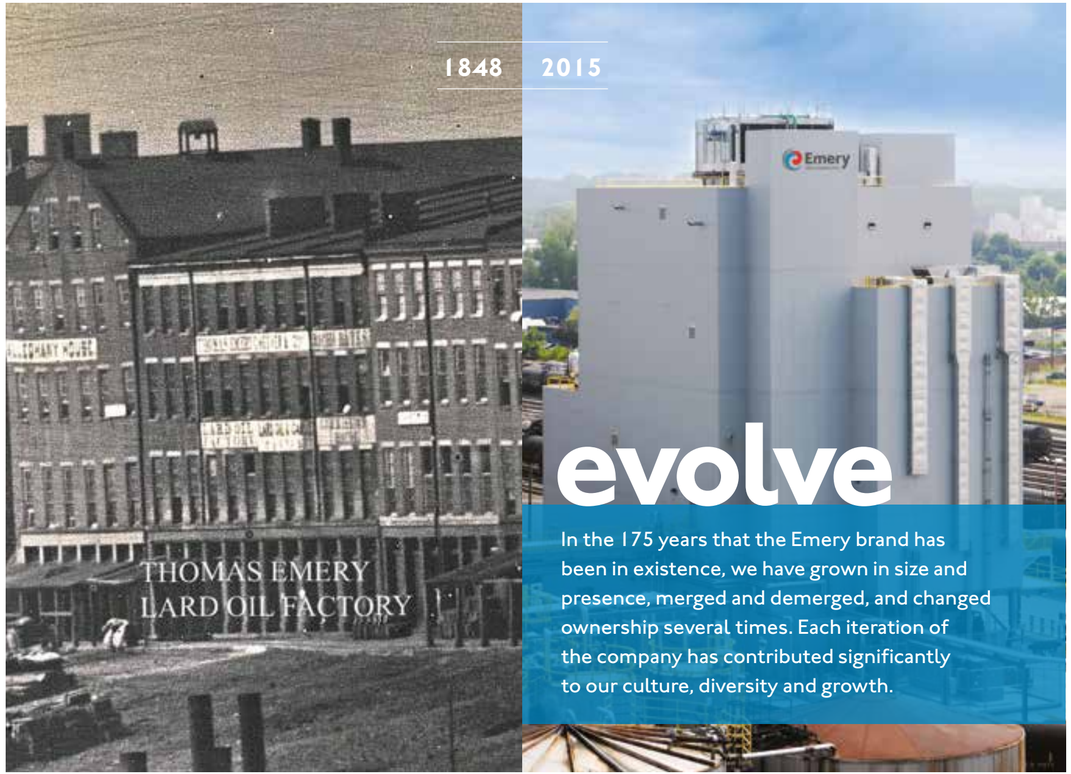
After the deaths of Thomas J. and John J. in 1906 and 1908 respectively, John's son, Jack, visited the factory in the early 1920s. He found it to be in a less than desirable state. Instead of pursuing a publishing career as he had intended to, Jack returned to the family business to turn things around, and thus began his more than 50-year involvement with the Emery company – bringing it to great heights and international fame – until his retirement in 1968 at the age of 70. He continued to serve as a corporate director and member of the company's executive committee till his passing in 1976, ending a long period of Emery family leadership.



Jack Emery



"Jack returned to the family business to turn things around, and thus began his more than 50-year involvement with the Emery company – bringing it to great heights and international fame ..."

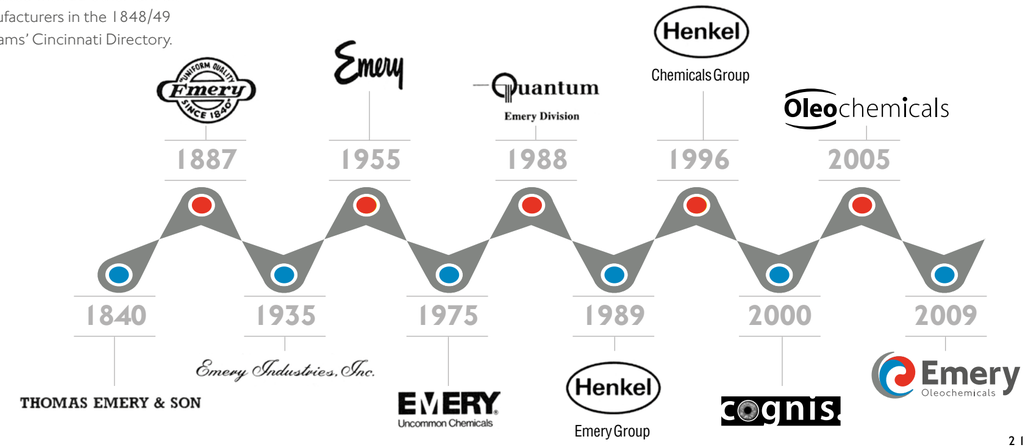


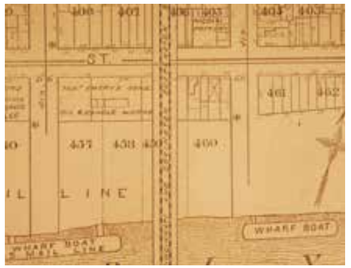
Many addresses, multiple names. And one direction – forward.

Thomas Emery Sr.'s business was first listed on Sycamore Street *(now known as the Over-the-Rhine/ Pendleton neighborhood)* in 1846. This location is likely where the lard oil manufacturing business began. Two years later, it moved to 33 Water Street, which fronts the Ohio River. The company was listed with 22 other lard oil manufacturers in the 1848/49 Williams' Cincinnati Directory.

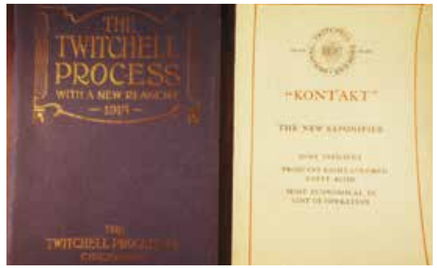
The 1851/52 Directory showed that the Emery factory had already undergone expansion, but to support their growing business, Emery and his sons began building a new manufacturing facility a block and a half west, at the southeast corner of Vine and Water Streets in 1857.

In what is considered to be the oldest known panoramic photograph of the Cincinnati shoreline taken in 1848, Thomas Emery's Lard Oil Factory is clearly shown in one of the frames.





Plot from 1870s showing Thomas Emery & Sons factory location on Water Street at Vine



The Twitchell Process Manual (1915)

Did You Know?

- *Dr. Twitchell was very fond of animals and kept a pet cat in his laboratory.*
- *He had a long affection for the outdoors and enjoyed fishing with friends and hunting ducks along the southern shores of the USA.*

While the Ohio River was convenient for transportation of raw materials and products, it was also prone to severe flooding. In the mid-1880s, the factory was ravaged by fire and devastated by flood. Instead of rebuilding, the site was relocated to an 8.9-acre tract in Ivorydale, St. Bernard, along the Mill Creek. The new location provided access to rail transportation and water for the manufacturing process.

The company changed its name to Emery Chemical Company, and subsequently, in 1887, the Emery Candle Company was incorporated with capital of $200,000; setting in motion a legacy in manufacturing of renewable-based solutions it will come to be remembered for years to come.

During this time, as more technological advancements were being researched and patented by Emery's resident scientist, Dr. Twitchell, the company was not only firmly positioned in United States, it was also exporting candles and chemical products to Europe. Little did the Emery brothers know how far reaching the impact of the business and the Twitchell process would have on the company's awe-inspiring history.

In 1909, in a town called Holthausen, Germany, a different set of events were unfolding, also within a growing family-owned empire whose first fatty acid/hydrolysis plant based on the Twitchell process came on stream on December 18. This plant went on to produce the world's first self-active detergent with the tradename "Persil" and was owned by Henkel & Cie – another family-owned company whose international fame would come from a successful line of detergents and soaps. The Henkel name was to formally be a part of the Emery history in 1989.

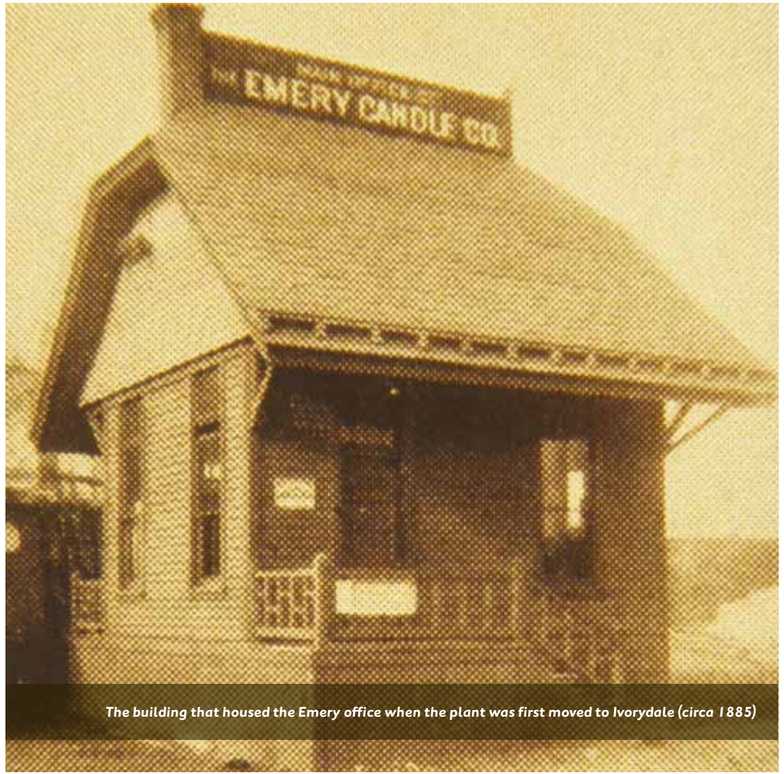
Little did the Emery brothers know how far reaching the impact of the business and the Twitchell process would have on the company's awe-inspiring history.

The Apotheacary Oscar Neyanbar & Co AG (1930s)

Filter presses, Düsseldorf (1933)

Extraction and saponification, Düsseldorf (1925)

The official approval of the Henkel glycerine plant (1933)



The building that housed the Emery office when the plant was first moved to Ivorydale (circa 1885)

After a year of journeying around the world to "all sorts of exotic places", Jack Emery paid a visit to Cincinnati and found that "the Emery Candle Company was just a grease factory with obsolete equipment and a sort of Dickensian office".

While the company had developed a new line of "Twitchell Oils" and other products during the first quarter of the 20th Century, Jack saw a need for more focused leadership and took over the company reins. He soon consolidated the Emery Candle Company, Twitchell Process Company and Duratone Company into Emery Industries Inc. in 1935 and simultaneously led the Thomas Emery's Sons business in the real estate development market.

Did You Know?

Emery's stearic acid is used in candles, soap bars and even fed to dairy cows to boost milk production.

In 1952, Emery Industries sold the candle division to Candle-Lite and acquired Malmstrom Chemicals Corp and Trylon Chemicals, Inc. – solidifying their position in personal care and textile chemicals.

In the eighties, the company headquarters moved from the 49-story Carew Tower (*successfully built by Thomas Emery's Sons in 1930, despite the Great Depression, and remained the tallest building in Cincinnati until 2010*) to the Northlake complex. The company was renamed Emery Chemicals.

Emery Chemicals would later merge with National Distillery and Chemical Corp. in 1978, two years following John Emery's passing, and be known as Quantum Chemical Corp in 1988.

Quantum
Emery Division

The Henkel Group had also expanded tremendously. In 1980, the foundation of Henkel Oleochemicals Malaysia was laid and the fatty acid and methylester plant was commercialized in 1984. By this time, amongst its global operations, Henkel also had an additional site in Loxstedt, Germany that it purchased in 1968. Producing plastics auxiliaries, this site would go on to provide the Emery business with a diversified portfolio of products and unique processing technologies alongside the traditional fatty acid and alcohols product line.

Henkel Oleochemicals main office in Malaysia (1989 - 2000)

The official launch of Henkel Oleochemicals (M) Sdn Bhd in 1984

Did You Know?

- *Carew Tower has the distinction of making Cincinnati one of the last major American cities whose tallest building had been constructed prior to World War II, until the Great American Tower opened in 2010.*
- *The complex today contains the Hilton Cincinnati Netherland Plaza (formerly Omni Netherland Plaza), and was used as the model for the Empire State Building in New York City.*

A milestone event took place in 1989 when Quantum's Emery division was acquired by Henkel KGaA, the holding company for the Henkel Group, strengthening its world leadership in oleochemical-based materials.

Henkel
Emery Group

Styled Henkel Emery Group, this new company brought together two, innovative-minded businesses that were equally determined to include environmental issues in its research and development policies.

Following years of investments in facility expansion, technology development and product enhancements, Henkel decided to carve out its chemicals unit – including the oleochemicals, care chemicals, and organic specialties operations – into a standalone, but fully Henkel-owned entity called Cognis in 1999. By giving it greater flexibility to do its own joint ventures and financing, the spin-off was part of its plan to "create value through restructuring, active portfolio management and concentration on high-growth products".

cognis.

In 2001, Henkel realigned its global businesses and this strategic redirection was the basis for a series of major decisions. Cognis *(the Chemical Products business sector)*, was sold to a consortium of private equity firms which included Schroder Ventures and Goldman Sachs Capital Partners, to fund future acquisitions for its cosmetics, detergents, adhesives and surface technologies businesses.

Four years later, Cognis entered into a joint venture with Golden Hope Plantation *(later known as Sime Darby Plantation)* and was known as Cognis Oleochemicals (M) Sdn Bhd (COM). This 50:50 joint-venture meant that the manufacturing sites located at Cincinnati, Düsseldorf, Loxstedt, Toronto as well as Malaysia were transferred to COM – making it the biggest oleochemical player in Malaysia and second largest fatty acid producer in the world.

Cognis entered into a joint venture with Golden Hope Plantation ...making it the biggest oleochemical player in Malaysia and second largest fatty acid producer in the world.

Fatty alcohol plant

Sime Darby Plantation and PTT Global Chemical celebrate new partnership (July 2008)

Emery
Oleochemicals

Emery Oleochemicals is today a global specialty chemicals manufacturing operation that spans three regions: Asia Pacific, Europe and North America.

In 2008, Goldman Sachs Capital Partner sold its shares to PTT Global Chemical, bringing to life another era of this evolving brand as the strategic partnership combined a shared vision of this new entity in "becoming the global leader in value-added and diversified oleochemicals".

Capitalizing on the rich history and heritage that Thomas Emery Sr. began in 1840, the new shareholders - Sime Darby Plantation and PTT Global Chemical - chose the name **"Emery Oleochemicals"**, launching it in 2009. This new business identity brought promise of a partnership that would continue, through a long-term commitment "to invest in growth, focus on customer needs, expand market driven R&D, and drive innovation." The Emery belief system of delivering quality, sustainable products, respect for the people who represent the Emery community; and for the company to be an active contributor to societal development, was certain to stay. Emery Oleochemicals is today a global specialty chemicals manufacturing operation that spans three regions: Asia Pacific, Europe and North America. Emery provides manufacturers and formulators alike with best-in-class renewable solutions recognized for their ability to improve processing efficiencies, deliver outstanding technical performance and enhance environmental safety.

Using proprietary technology, in-depth market insights and superior technical know-how, the company currently offers customizable solutions for many high-growth sectors such as agriculture, automotive, housing and construction, electrical and home appliances, food and beverage, furniture and bedding, home and personal care, lubricants, packaging, pharmaceutical, textiles, and oilfield and exploration.

Since the Emery Oleochemicals journey began in 2009, we already have lots to tell !

Emery Oleochemicals' Board of Directors World Tour, Global Headquarters, Malaysia (2010)

Emery Oleochemicals' Board of Directors World Tour, Telok Panglima Garang, Malaysia (2010)

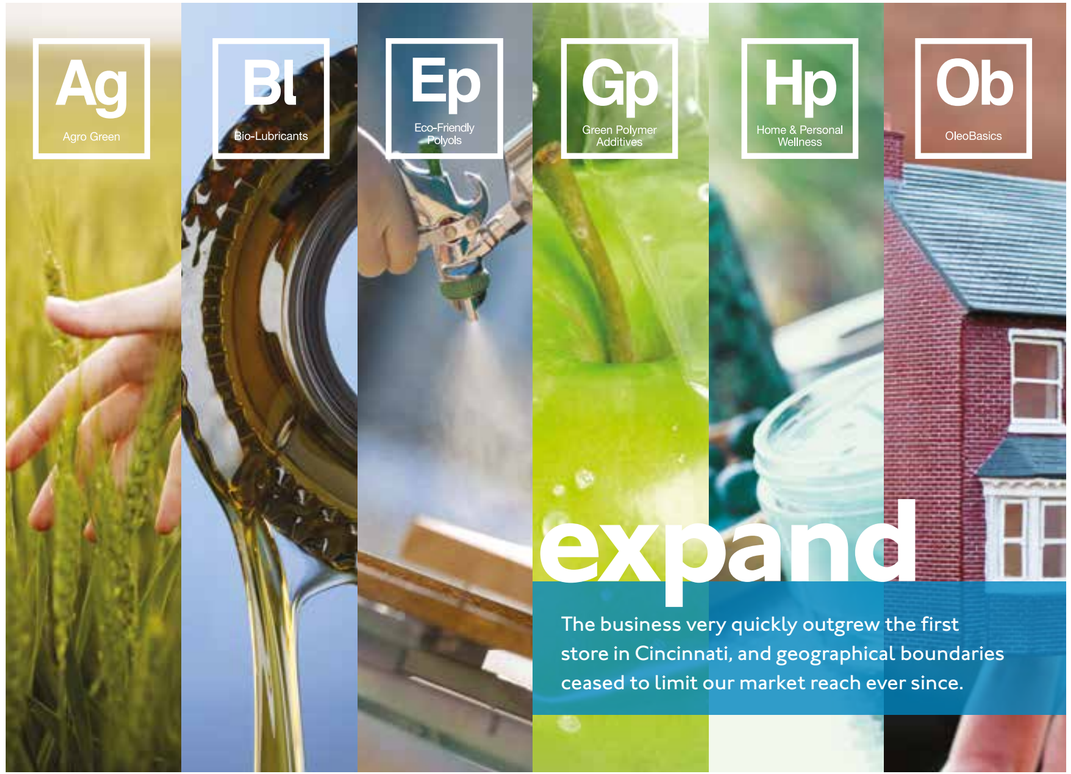
Emery Oleochemicals' Board of Directors (2015)

Telok Panglima Garang (TPG), Malaysia

Cincinnati, USA

Loxstedt, Germany

Düsseldorf, Germany



expand

The business very quickly outgrew the first store in Cincinnati, and geographical boundaries ceased to limit our market reach ever since.

Loxstedt - Neynaber (1952)

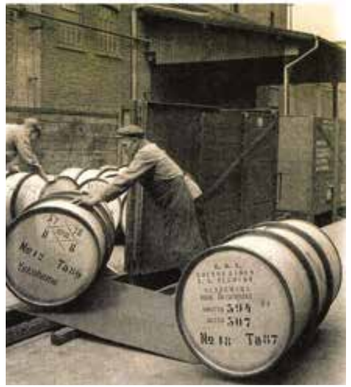
Influencing the global chemicals industry

The company saw even greater expansion, requiring manufacturing plants in seven U.S. states and in Canada, Europe and Australia ...

While our founder Thomas Emery Sr. was still at the helm, he expanded his manufacturing facilities four times and moved to larger premises along the way to accommodate the growing demand. As history would state, in the mid-1850s, he sold by-products from candle making for the lubrication of wool yarn, dominating this market east of Pittsburgh where the majority of wool mills were situated.

Before the end of the 19th century, the Emery Candle Company was a thriving international business with a firm footing in North America and Europe through its sales of candles and chemicals. High quality products like Lily® stearic and Elaine® oleic acids had become unmatched standards in the industry.

Jack Emery's entrée to leadership in 1924 brought back the Emery family name into the management fold, previously vacant following the deaths of Thomas J. and John J. The company saw even greater expansion, requiring manufacturing plants in seven U.S. states and in Canada, Europe and Australia – which also bore testament to a vibrant "Roaring Twenties", a period of growing economic prosperity with a distinctive cultural edge taking shape in many major cities in the United States, Canada and Europe. The chemicals industry was indeed influenced by the large-scale use of automobiles, telephones, motion pictures, electricity, unprecedented industrial growth, accelerated consumer demand and aspirations brought about by changes in lifestyle and culture.



Quality laboratory, Düsseldorf's glycerine plant (1922)

It was very clear to Jack Emery what commitment to innovation meant – investing significantly in human capital and channeling financial resources into research and development activities. Emery Industries' proprietary ozone technology and new research lab in the 1950s were game-changers for the company, allowing growth in the transportation industry.

By the 1980s, Emery's synthetic lubricants conquered the USA's trucking industry with up to 85% of new heavy-duty trucks using its products.

In parallel, Henkel's global reach and innovation growth had spurred site expansions and technological investments at Düsseldorf. The mid-1920s onwards saw the establishment of "central workshops" with the startup of the laboratory in the glycerine factory.

When the Henkel name became a fixture in the Emery history in 1989 with the buyout of the Emery Division from Quantum Corp., the culture, aspiration and inspiration of running a global business was already set. As it becomes more evident in the later chapters of this book, "research and innovation" is core to the business success and remains unchanged then as it does today, perhaps becoming even more critical as market demands evolve.

What is also interesting to note was the changing landscape of our product range and the technological advancements that enabled its development.

From tallow candles to stearic acid to specialty fatty acids, our customer profiles changed from the combination of textile factories and end-consumers purchasing decorative, church candles to then include the automotive, aviation, plastics, agriculture, personal and household care, and pharmaceutical industries; in short, basic chemicals to "uncommon chemicals" to specialty chemicals, today.

Capitalizing on the many years of technical know-how, proprietary technology and in wanting to continue providing real-world solutions, Emery Oleochemicals reconfigured its business model at the end of 2010. While remaining unchanged in developing products that are renewable-based (*predominantly derived from natural oils and fats such as palm, palm kernel oil, other seed oils like sunflower, rapeseed and canola; and tallow*), a new lineup of market-based business platforms were introduced.

Did You Know?

In conducting his land agent business, Thomas Emery Sr. enlisted the support of prominent Cincinnatians and recorded their names as references in advertisements in the Cincinnati Daily Gazette which began on June 26, 1833.

These are the business platforms that support our vision

"to become the world leader in value-added natural-based chemicals."

The five specialty business platforms – ***Agro Green, Bio-Lubricants, Eco-Friendly Polyols, Green Polymer Additives, Home and Personal Wellness*** – are to be supported by the mainstay ***OleoBasics*** business. Corresponding expansion projects were then put in place to support future product development goals that would allow the company to participate more actively in the derivatives market, producing performance solutions for other high-growth sectors such as housing and construction, electrical and home appliances, furniture and bedding, and oilfield and exploration.

With sales and service offices around the world, our international operation is supported by a diverse workforce comprising about 1,000 employees worldwide and is backed by regional technical development centers and an extensive distribution network.

"As we strive towards becoming a leader in renewable-based chemical solutions, we are building on our rich legacy of proven technologies and market knowledge. Backed by strong research and development, we are able to supply the market with innovative, cutting-edge and reliable solutions."

Peter Hans Piringer,
Senior Vice President & Chief Business Officer

diversify

We began with only two core products – tallow candles and lamp oils; today, we are able to offer more than 3,000 diverse products to customers from a multitude of industries and application needs. We continue to develop our product line to meet the growing demand for high-performance and environmentally friendly solutions.

From two to three thousand and growing

We have always been innovative, being able to manufacture one product from another or to innovate and use by-products in making solutions for complementary industries. When Thomas Emery Sr. saw there were large amounts of leftover fat from the meat industry, he turned unwanted waste into valuable products – lamp oil, lubrication for machinery, and the famed "Star and Adamantine" candles.

After we transitioned from using tallow to stearic acid to produce sturdier, dripless, fine white candles, the by-products of glycerine and oleic acid were sold to soap manufacturers and wool makers.

In the early 1900s, a new line of Twitchell Oils and lubrication products for natural and synthetic fibers were developed, becoming the early forerunners of today's broad line of surfactants. After Jack Emery took over the business, the commercial production of existing chemical products would be improved, and the Emery Candle Company would further its product line into the fields of plasticizers, synthetic lubricants and aroma chemicals with proprietary technologies that were visionary for their time.

As a matter of fact, Ryder Truck Rental became the first major fleet to use EMGARD®, signaling market approval for its application in synthetic lubricants under warranty!

Stearic Acid in various finishes (1840–1887)

We have always been innovative, being able to manufacture one product from another.

Cincinnati site expansion (1980)

Neynaber Chemie GmbH production site in Loxstedt, Germany

Site expansions in 1980 in Cincinnati saw the addition of one of the world's largest fatty acid distillation columns that is capable of refining and producing pharmaceutical grade 99.8% glycerine. While Emery was part of the Quantum organization, our research efforts led to the development of new products called poly alpha olefins (PAOs) and a new plant was built in Texas to make them (this site was not a part of Henkel's purchase of Emery).

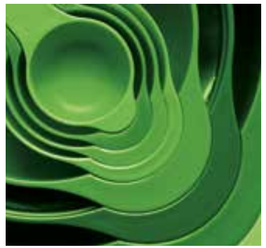
Later, under the Henkel organization, additional technologies, fatty alcohols and alkyl polyglycosides were brought to the Cincinnati site. These were also the result of research activities, which originated outside of Cincinnati, an example of Henkel's in-depth understanding of the on-going growth opportunities in the international chemical industry.

Undoubtedly, with Henkel *(and then Cognis)*, the company's investment in research and expansion leap-frogged the profile of the quality products being manufactured from its global operations. Among them was the leading brand LOXIOL® which today is one of the plastics industry's success stories. Originating from the Neynaber Chemie GmbH production site in Loxstedt, Germany in 1957, it remains one of the oldest brands in the Emery Oleochemicals' portfolio that continue to use their original trademarks today. Interestingly, Cognis' Nutrition & Health, Care Chemicals, Organic Specialties and Oleochemicals businesses took a more customer-focused approach to its specialty chemical business and grew to provide over 2,000 products to manufacturers, such as Procter & Gamble and Lever Brothers. It also provided formulations for detergents and household cleansers, cosmetics and toiletries, and organic specialties *(natural-based)* such as plastics, paints, coatings, lubricants and agricultural chemicals.

LOXIOL®

The commercialization of its Asian-based business in Malaysia *(1984)* expanded the company's reach in a region that was primed for exponential growth. As Cognis Oleochemicals, the company became the world leader in oleochemicals by manufacturing a wide range of fatty acids and alcohols. By this time, specialized chemicals for Polyvinyl Chloride (PVC) lubricants, oilfield, fatty acids, glycerides, triacetine and many more were part of the product range.

With Emery Oleochemicals, the Sime Darby Plantation and PTT Global Chemical partnership is unique in the industry; it combines unmatched expertise and synergy in plantations, oleochemicals, and petrochemicals. This allows the company to leverage opportunities for upstream and downstream integration, benefitting customers with a comprehensive range of application-driven business solutions.



Sime Darby Plantation

ptt GLOBAL CHEMICAL

Driven by our core values of Competitive Advantage, Innovation, Trust and Partnership, and a goal of becoming a leading solutions provider in natural-based specialty chemicals, ***we invested over USD500 million between 2010 to 2015 to accelerate the global growth of the company.***

create

Thomas Emery Sr. first made his products in his humble store on Sycamore Street. Today, Emery Oleochemicals processes enormous quantities of chemicals in vast state-of-the-art manufacturing facilities, located in three different regions of the world. More importantly, it provides real-world solutions.

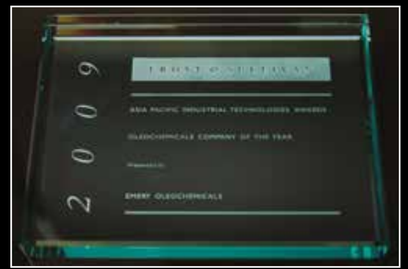
Emery Oleochemicals US facility control room (2012)

Producing a million tons of chemicals every year

Our production sites represent significant contributions to the Emery Oleochemicals 175-year story; indeed, a milestone not many companies reach.

We have continued to build on the strengths of our people, technology, operational efficiencies and global reach to compete in an international marketplace.

Emery Oleochemicals Cincinnati facility



2009 Frost & Sullivan
Winner, Asia's Oleochemicals Company of the Year Award

The award identifies and credits best practices in view of current market landscape and emerging technology trends.

"As an organization with long history and worldwide footprint, we are ready to leverage on competitive advantages from both shareholders and are committed in providing a dynamic and comprehensive solution to our customers."

Dr. Kongkrapan Intarajang
Group Chief Executive Officer,
(2009 – 2014)

milestones

Cincinnati, USA

1840 — Thomas Emery Sr. starts lard oil factory

1885 — Plant downtown is damaged by floods, necessitating the move to new site in St. Bernard

1887 — Emery Candle Company is incorporated in Ohio with capital of $200,000

1890 — Application of Twitchell Splitting developed by Dr. Twitchell

1935 — Merger of several Emery companies into Emery Industries, Inc.

1938 — EMERSOL® Solvent Separation plant is built and the process is patented

1940 — Emery Credit Union starts

Work begins on oleic acid cleavage to create azelaic and pelargonic acid

1941 — First company cafeteria is built

1942 — First oxidation plant comes on stream; plasticizers are introduced

1947 — First Colgate-Emery pressure splitter begins operations and the process is patented

1948 — Solvent Plant "C" in operation

1949 — New boiler plant

1951 — Ozone-oxidation process is patented

1954 — Plant for ozonation of oleic acid (No.1) in operation

1955 — Construction of Twitchell Memorial Laboratory is completed

1962 — Ozone plant (No.2) in operation

1969 — Emery acquires Malmstrom Chemical Corp. and Trylon Chemicals to strengthen position in personal care and textile chemicals

1971 — Major site expansion including third ozone-oxidation facility and new glycerine refining plant

1978 — Emery merges into National Distillery and Chemical Corp.

1980 — One of the world's largest fatty acid distillation columns is installed, capable of producing 99.8% pharmaceutical-grade glycerine

1981 — USD50 million expansion is announced; first aroma chemicals ethylene brassylate and Rose Ether® are commercially introduced

1985 — Headquarters moves from Carew Tower to new Northlake complex. Company name is changed to Emery Chemicals

1988 — Company is renamed to Quantum Chemical Corp. more than USD100,000 allocated for "abundant production capacity"

1989 — Quantum's Emery division is purchased by Henkel KGaA, and new entity named Henkel Emery Group is established

1998 — The site achieves one million man-hours without lost time to accidents.

1999 — Central Environmental Committee is formed; Risk Management Plan is communicated to local community groups

Henkel Chemicals Group officially becomes Cognis

2001 — Henkel KGaA divests Cognis to a consortium of private equity firms

2005 — Joint venture is formed between Cognis and Golden Hope, Malaysia (later called Sime Darby Plantation). This partnership is called Cognis Oleochemicals

2008 — Cognis sells its shares in Cognis Oleochemicals to PTT Global Chemical (Thailand)

2009 — The Emery Oleochemicals brand is launched, a nod to the rich Emery legacy

2010 — Emery Oleochemicals celebrates 170 years in business and 125th anniversary of the Cincinnati Este Avenue plant

2013 — USD50 million site expansion is announced, to grow capacity and state-of-the-art technical capabilities in bio-polyols which will be driven by a new business platform called Eco-Friendly Polyols. Expansion will also benefit the Bio-Lubricants and Agro Green platforms.

2015 — Bio-polyol plants begins commercial production

milestones

Düsseldorf, Germany

The history of the Düsseldorf site actually begins during the Henkel era. For the purpose of this book, significant highlights are outlined to give readers some context to the long history the Emery company has with Germany. In Düsseldorf, this relationship began when Henkel's first plant using the Twitchell process was constructed.

1909 — Henkel's first fat splitting plant comes on stream in Holthausen on December 18 producing glycerine

1913 — First firefighter is appointed as the Plant Fire Department's fulltime employee

1916 — 40-year anniversary publication is issued

1929 — Purchase of the first company-owned ambulance

1932 — Fatty acid production commences

A turbine house is built to generate electricity and process heat is utilized in line with heat and power generation principles

1935 — A fat hydrogenation plant begins operation and the plant opens its new company canteen

1937 — Employees receive a Christmas gift bag for the first time

1940 — Henkel organizes a plant kindergarten as well as a part-time site medical service

1951 — Expansion of the distillation plant and fatty acid tank farm

1974 — Installation of a solvent-free crystallisation plant for stearic and oleic separation

1984 — Triacetine plant comes on stream

1989 — Quantum's Emery division is purchased by Henkel KGaA, and the new entity named Henkel Emery Group is established

1991 — Introduction of enhanced fractionation technology

1995 — Introduction of hydrogenation using precious metal catalyst

1999 — Henkel Chemicals Group officially becomes Cognis

2001 — Henkel KGaA divests Cognis to a consortium of private equity firms

2003 — Enlargement of splitting and distillation capacities

2004 — Modernization and enlargement of glycerine factory

2005 — Joint venture is formed between Cognis and Golden Hope, Malaysia (*later called Sime Darby Plantation*). This partnership is called Cognis Oleochemicals

2008 — Cognis sells its shares in Cognis Oleochemicals to PTT Global Chemical *(Thailand)*

2009 — The Emery Oleochemicals brand is launched, a nod to the rich Emery legacy

2010–14 — Various automation, efficiency and capacity upgrades

Enhancement of quality and logistic related processes

2015 — Emery Oleochemicals makes a strategic decision to divest the Düsseldorf commodity operations in line with its corporate focus on building the company's specialty chemicals portfolio

milestones

Loxstedt, Germany

The history of our Loxstedt site has its roots in 1898 when it began as an apothecary and cod liver oil factory established by Oscar Neynaber and Friedrich Albert Pust in Geestemünde. It was a significant port city with deep-sea fishing as the third largest economic driver, alongside trade and shipbuilding, since the mid-1880s. By 1908, there were about 25,000 inhabitants living in Geestemünde *(it became a part of the city of Bremerhaven in 1947)*.

1898
Oscar Neynaber and Friedrich Albert Pust establish a cod liver oil factory in Geestemünde, which soon earns the moniker "First German steam cod liver oil factory"

1908
The limited commercial partnership Pust & Neynaber in Loxstedt becomes a stock corporation

1957
The brand name LOXIOL® starts manufacturing on November 13 for the plastics industry

1968
Persil GmbH (subsidiary of Henkel & Cie, Düsseldorf) took over Oscar Neynaber & Co AG, which specializes in oleochemical products such as plastics auxiliaries. The company was renamed to Neynaber Chemie GmbH

1991
An esterification plant to produce plastics additives goes into operation

1994
The powder blending plant for environmental-friendly stabilizer for PVC is constructed

1998
To mark its 100th anniversary, Neynaber Chemie donates DM100,000 for youth work in Loxstedt

1999
Henkel Chemicals Group officially becomes Cognis

2001
Henkel KGaA divests Cognis to a consortium of private equity firms

2004
The PVC stabilizer business is sold to Reagans and Sun Ace

2005
Joint venture is formed between Cognis and Golden Hope, Malaysia *(later called Sime Darby Plantation)*. This partnership is called Cognis Oleochemicals.

2008
Cognis sells its shares in Cognis Oleochemicals to PTT Global Chemical *(Thailand)*

2009
The Emery Oleochemicals brand is launched, a nod to the rich Emery legacy

Barrel storage space expansion completes

2012
Warehouse space is enlarged

Esterification facility begins production

2013
Another esterification facility extension goes on stream

Technical Development Centre is launched

2014
Beading tower is completed and plant goes on stream

milestones

Telok Panglima Garang (TPG), Malaysia

Representing the youngest site amongst our suite of manufacturing facilities, the Malaysia site has also seen perhaps the fastest growth and largest investment in tandem with the accelerated urbanization of the Asian population. The facility is located in a Free Trade Zone and began operations in 1984. It is also Halal and Kosher certified.

1980
Foundation of Henkel Oleochemicals Malaysia is laid

1984
Production of fatty acids and methylesters begins

1988
Production of fatty alcohols starts

1992
Another fatty alcohols plant comes on stream

1999
Henkel Chemicals Group officially becomes Cognis

2001
Henkel KGaA divests Cognis to a consortium of private equity firms

2003
Fractionation capacity is increased

2005
Joint venture formed between Cognis and Golden Hope, Malaysia (later called Sime Darby Plantation). This partnership is called Cognis Oleochemicals

2008
Cognis sells its shares in Cognis Oleochemicals to PTT Global Chemical (Thailand)

2009
The Emery Oleochemicals brand is launched, a nod to the rich Emery legacy

2012
Asia Pacific's first integrated plastic additives starts up in a complex adjacent to the main fatty acids plant

2014
Methylester fractionation plant begins production to support current fatty alcohol production

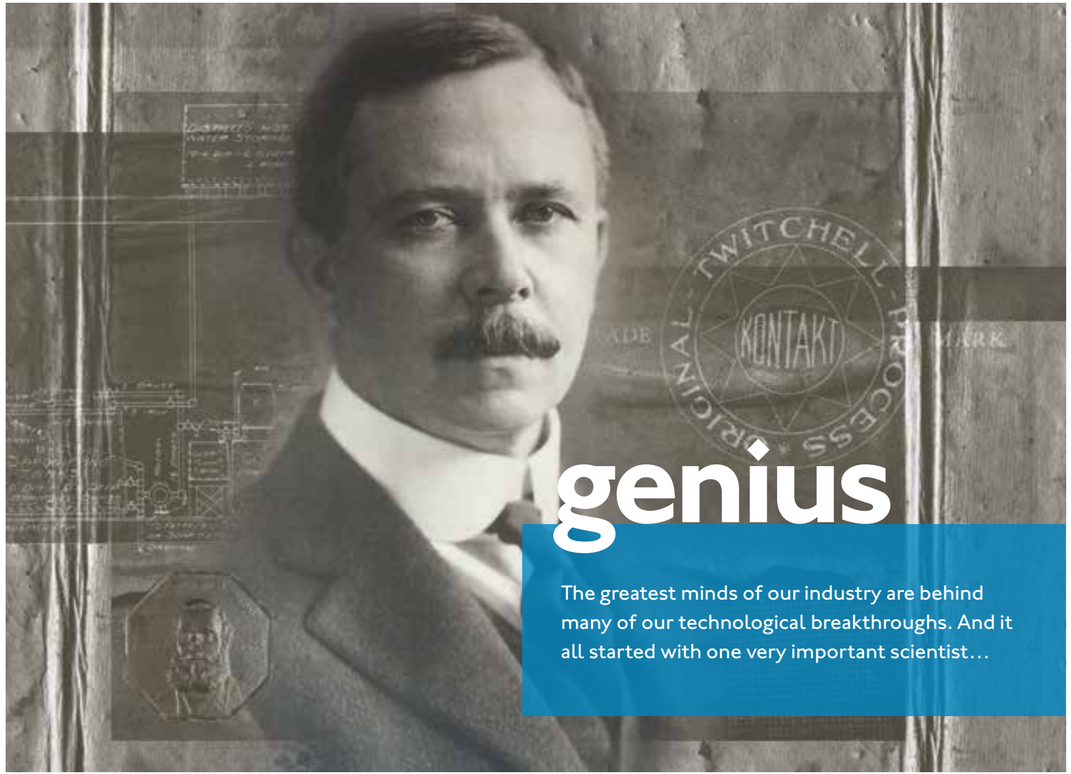
Sulphation process facility built in partnership with sulphation technology leaders, Desmet Ballestra, begins production in specialty fatty alcohols for household and personal care products

2015
Specialty ester facility, established as a joint venture with AK ChemTech, a leading Korean-based chemical company, comes on stream. Called Emery Aekyung, the site produces a range of specialty co-surfactants used in personal care products, which is to be commissioned in the third quarter

great

Our drive to improve existing or develop new processing technologies is premised on delivering solutions that address our customers' challenges. The continued manufacture of groundbreaking natural-based products is the reason for our success. Always has been, always will be.

A Legacy Of Innovation



genius

The greatest minds of our industry are behind many of our technological breakthroughs. And it all started with one very important scientist…

Dr. Ernst Twitchell,
"The Grandfather of Oleochemicals" (1863 – 1929)

Dr. Ernst Twitchell was not just our first full-time chemist; he was also a pioneer in the oleochemicals industry. In 1886, at the age of 23, this Cincinnati-born chemist joined the Emery Candle Company, accepting the position also of the general manager, and it was during this time that he discovered and perfected the well-known "Twitchell Process".

1888 became a significant year when he was granted his first patent for splitting fats and oils using a catalyst. Between 1899 and 1915, he received four more patents for further modifications and improvements of the fat splitting technology. Collectively, these became known as the Twitchell process, without which methods to produce feedstock for distillation and modification may not have been developed much later.

Such was its influence in the chemicals processing industry that in less than three decades, most of the soaps used in Germany, Holland and Scandinavia were made from fatty acids, of which 75% were produced using the Twitchell process. It remained a method used well into the 1960s. Encouraged by his friends, he established the Twitchell Process Company and served as Chairman of the Board. Research work would also continue with other patents to follow.

Receiving a patent in 1907, his discovery in making triacylglycerols *(esterification of glycerol with fatty acids)* led the way for future industry innovations in textiles and dyeing, oil paints, food industries and today, in bio-diesel - bringing forth the commercially important aspects of fats and oils of animal and plant origins.

Twitchell was venerated for his scientific and academic contributions. His alma mater, the University of Cincinnati, conferred on him an honorary Doctor of Science, and he endowed the Twitchell Fellowship to the University's Department of Chemistry. His interests extended well beyond science, and he had a well-packed library consisting of several thousand volumes on literature, music and art. He was of a quiet retiring disposition but made friends easily, and was kind and understanding, which inspired confidence among peers and young scientists.

Emery Candle Company's lab where Twitchell's many groundbreaking innovations were discovered

Did You Know?

Dr. Twitchell was known to do the calculations for customer quotations directly on the envelopes in which the request letter came, and he filed them that way. They were found in the company files many years later.

Never one to seek fame, he let his research be its own reward. A colleague paid tribute, "My association with him left an impression, which contributed much to the progress and happiness of my life. Among all the men I ever knew I do not know one as nearly faultless as he."

In 1917, he was awarded the prestigious Perkin Medal, the highest honor in United States' chemical industry. He retired from the Twitchell Process Company in 1925, and passed away four years later at the age of 66.

To commemorate Dr. Twitchell's invaluable contribution to the company and to the industry, the Twitchell Memorial Laboratory (in Building 53) at our Cincinnati manufacturing site was established in 1955 and still exists today – a reminder to us all of what an innovative spirit can achieve.

The Twitchell Memorial Laboratory (opened 1955) is part of Building 53 (completed 1970)

"It gives me great pleasure as the representative of the affiliated Chemical and Electrochemical Societies of America, to place in your hands this beautiful Perkin Medal as a token of the appreciation and affection of your fellow chemists"

– Inscription on Perkin Medal which was awarded to Dr. Twitchell.

A Letter from Steve Turner, Director of Research & Innovation, to Dr. Ernst Twitchell

Dear Ernie,

Emery Oleochemicals is celebrating its 175th year in business this year and I'm writing to tell you about the great influence you've had on the company and our industry since you left.

Today, Emery Oleochemicals makes many different esters, which you might know better as triacylglycerols; some use fatty acids and glycerol similar to your 1907 patent. After you were awarded the Perkin Medal in 1917, other industry giants would follow and receive the same honor - like Herbert H. Dow in 1930 and Gaston F. DuBois in 1944. Although my readers would probably not recognize their names, four other Perkin Medal winners - Irving Langmuir, Glenn Seaborg, Paul Flory and Herbert Brown - are Nobel Prize recipients.

Your method for accurately determining the solid and liquid contents in fats and oils allowed you and other scientists to perfect the manufacturing of single, double and triple pressed stearic acids. In 1938, our scientists patented a method for crystallizing fatty acids from methanol, known as the EMERSOL® Process or Solvent Separation. It replaced the pressing operation you were intimately familiar with, but your work had provided the fundamental data on melting points and eutectics that allowed this development, and it is to this very day still, the best process for separation of liquid and solid fatty acids.

As you might recall, Jack Emery took over the family business just before you retired. He combined the Emery Candle Company, the Twitchell Process Company and the Duratone Company into a new one, called Emery Industries. The Twitchell process was the backbone of Emery Industries and remained so for more than another decade.

In 1947, Colgate and Emery independently developed counter current fat splitting technology, which uses water at high temperature (480°F) and no catalyst. The Colgate-Emery process, aka Pressure Splitting, replaced your Twitchell process for splitting fat. The Twitchell process survived in parts of Europe until the sixties but, eventually, the world changed to the new Colgate-Emery technology. Some esters, however, like methyl esters, cannot be Pressure Split efficiently and here, your Twitchell process is still used today.

By current standards, your laboratory was very rudimentary; some Bunsen burners, thermometers, a mechanical balance, basic glassware, and yet you were able to discover and accomplish so much. You would be amazed by today's technology and our laboratory. For example, we can now take a couple drops of fat and, using a machine called a gas chromatograph, quantitatively determine all of the fatty acids present, which takes us about an hour. I know you spent months, if not years, determining these things in the 1890s, and I can only imagine what you could have accomplished with a laboratory like we have today.

After Jack passed away in 1976, we changed ownership and names a number of times, but through it all, we never lost sight of you and your accomplishments. In 2009, we emerged once again as Emery Oleochemicals. And now, 90 years since you retired, you would be proud to know that your legacy lives on. Your insights and innovations inspired generations of scientists and paved the way for the little Emery Candle Company you knew to prosper and thrive, becoming the global Emery Oleochemicals I know today.

Sincerely,

Steve

natural

The world is only just beginning to embrace "green" products, but ever since we sold tallow candles, Emery Oleochemicals has understood the potential and significant contribution that renewable resources offer to product quality, performance and the environment.

Keeping it natural through the ages.

Charles Green, one of our company's early plant managers, embarked on several study trips beginning in 1885 to explore new manufacturing techniques. From his observations in Belgium, France and Holland, he would adapt techniques for Emery's plant at Ivorydale. Green would also obtain specifications for industrial reaction vessels, investigate new ways of stearic acid bleaching and testing for impurities in gylcerine.

With Dr. Twitchell's study of emulsions during the same period, oils developed included the first successful rewetting agent for Sanfordized fabrics and other oils suited for lubrication of natural and synthetic fibers – becoming the early forerunners of today's broad line of surfactants.

The revolutionary EMERSOL® Solvent Separation process, patented in 1938 and still used today, is a core process that enables the production of higher purity *(quality)* derivatives in the commercial production of stearic, oleic and special fatty acids.

At the same time, Henkel was also increasing its chemical production using naturally sourced feedstocks *(codfish oil, tallow, vegetable)*. In 1910, pure glycerol production had begun with the company generating 328 tons of glycerine in the first year alone. Glycerine is a by-product from making soap.

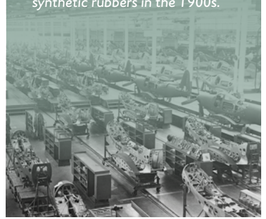
By the time 1932 came around, quality improvements in fatty acids became the backbone of Henkel's detergent business.

Continued facility upgrades took place up to 1962, in tandem with demand, product innovations and manufacturing efficiencies.

The Emery business continued its research efforts in renewable-based sources, focusing its growing research infrastructure and efforts in vegetable and tallow based oils. In 1942, a new oxidation plant started producing azelaic and pelargonic acids, providing an exciting entry for the company into the plasticizer and synthetic lubricant fields. The hydrogenation plant also began operations.

In Loxstedt, Germany *(which became part of the Emery Oleochemicals' group in 1989 via Henkel KGaA's acquisition of Quantum Emery)*, the first esterification unit opened in 1952.

During the early to mid-1940s, development and commercial activities were driven by efforts to support both sides during World War II. As a journalist aptly put, it was a time when "materials advanced in the shadow of conflict" with key developments including the widespread use of nylon (parachutes and later, in tires, tents, ropes); large-scale production of penicillin; insecticides and the introduction of plastics, polyester and other fibers. With demand, innovations grew – and so did the heavy use of synthetic materials. Intended to replace costly and sometimes less efficient products, the petrochemical industry experienced a surge to eventually become a major player in today's economy and society, moving by leaps and bounds considering that it used to be a tentative, experimental sector, starting with synthetic rubbers in the 1900s.



Back in Cincinnati, the next generation of Emery scientists would revolutionize Emery's manufacturing processes, thereby impacting the chemical industry. The year of 1953 was a milestone year for the company in innovative facility operations when the Colgate-Emery Pressure Splitter replaced the Twitchell Process for splitting fat, while the ozonolysis-oxidation method allowed products generated through its proprietary ozone technology to be used in water treatment, aquaculture and odor control applications. Emery's dimer acid plant came on stream in 1951 and the company again received a patent for this pioneering discovery which allowed Emery to establish a prominent position in ester synthetic basestocks. Innovations in this space resulted in fully compounded lubricants and greases for aviation, military, automotive and industrial uses.


High pressure splitter No. 1 (circa 1947)

Not long after the acquisition of Malmstrom Chemical Corp. and Trylon Chemicals, Inc., Emery Industries began supplying ethylene brassylate which required precise manufacturing to achieve specific flavors and fragrances. This signaled the company's first foray into the aroma chemicals market with the eventual commercialization of ethylene brassylate and Rose Ether® for insect repellent, dyes, inks, preservatives and pharmaceuticals in 1981.

The undercurrents of environmental issues caused by chemicals had already picked up momentum prior to the 1980s, though focusing primarily on pollution clean-up and obvious toxins. A major paradigm shift began to occur among chemists as scientists following "decades of growing in environmental awareness, began to research avenues of preventing pollution in the first place". Leaders in the industry and in governments had begun international dialogues to address the problems and look for preventative solutions.

Emery's Düsseldorf and Loxstedt sites were undergoing major facility and/or research infrastructure expansions throughout the 1980s. As the Malaysia site opened in 1984, Henkel was already producing environmentally compatible products and, in 1987, went on to establish a global corporate guideline that incorporated "environmental protection" – giving it the same priority as the generation of profits.

This principle provided the lens through which subsequent implementation of new (or *improved*) manufacturing operations, research and product development efforts and worker safety were based.

Fast forward to the 1990s and leading up to the mid-2000s, the company remained steadfast in improving its health, safety and environmental agenda. This philosophy remained unchanged with the Emery Oleochemicals brand launch in 2009.

Did You Know?

"Sanfordized fabrics" is a process of treatment used for mainly cotton fabrics and most textiles made from natural or chemical fibers. It is used to stretch, shrink and fix the woven cloth in both length and width before cutting and producing garments, thus reducing shrinkage which would otherwise occur after washing. It was patented by Sanford Lockwood Cluett (1874–1968) in 1930.

Emery Oleochemicals was the beneficiary to established stewardship in various aspects of natural-based chemical production systems. As a result, our feedstock today comprises mainly renewable palm, palm kernel oil and various other seed oils, and tallow. Having grown our production technology and technical capabilities to handle a wider range of renewable sources that now represent our portfolio of raw materials, we look forward to business growth in the "green chemistry" space. Backed by expansion projects, strengthened innovation agenda and global talent management initiatives amongst others, our dedication to being a responsible business is fueled by our customers' needs for alternative solutions to the petrochemicals prevalent in the marketplace. And as we continue on this journey and deliver solutions for more niche applications than before, it is the enduring Emery spirit of innovating real-world solutions, sustainably, that provides us that singular purpose to our business and values. This is perhaps best epitomized in the global investments we have made, and continue to make.

Did You Know?

- *We sell our glycerine to customers who use it in almost every personal care product you can think of, especially mouthwash, toothpaste, clear soap bars, hand creams and lotions. Our glycerine is also used in diverse products from antifreeze to pharmaceuticals.*
- *Almost every single note of US currency in circulation today contains a tiny amount of our glycerine. It is a super-secret ingredient used in the ink found on these bills.*
- *Our products may also be in your fishing line or part of the adhesive that keeps the sole attached to your shoe.*
- *Azelaic acid is also formulated into a very effective face cream to treat acne and other skin conditions.*
- *Since 1840, Emery has used the by-products of the food processing industry. In the US, we process about 500 million pounds of tallow and other fats each and every year. That is an equivalent of over 2,000 railcars each year to supply us with our basic raw materials.*

dynamic

Our manufacturing processes continue evolving to achieve optimum efficiency and incorporate new industry standards. This provides the base from which our agile, cutting-edge production facilities spawn a myriad of superior renewable-based products.

Explore, experiment and excel.

Our regional investments speak to our global growth agenda in advancing our renewable-based specialty chemicals manufacturing capabilities and increasing the number of differentiated products in our portfolio. Additionally, to leverage in our market insights, we strive to facilitate joint-product development work in customizing solutions for a growing international client base. Concurrently, we remain on track in establishing a sustainable business.

Site agility, enabled by the state-of-the-art equipment that is in place, will additionally cater to the production of solutions for bio-pesticides, polymer additives and bio-lubricant applications.

Cincinnati, USA

Driving innovations in bio-based and recycled-content polyols

An investment of USD50 million was made for a specialty ester facility designed to primarily grow our footprint in bio-based and recycled-content polyols for polyurethane applications.

Leveraging existing ozone production to produce feedstock, products marketed through our Eco-Friendly Polyols business platform are the next generation of renewable-based polyols catered to the growing rigid and flexible polyurethane markets *(used, for example, in the furniture, bedding, automotive, housing. and construction industries)* and CASE *(coatings, adhesives, sealants, elastomers)* applications. Bio-based solutions are offered through the EMEROX® Polyols product line and this project came on line in early 2015.

The acquisition of INFIGREEN® assets and technology in 2013 accelerated the company's growth in pioneering polyols. Construction on a new facility to commercialize recycled-content polyols started in the same year. Residing in the same complex as the specialty ester plant, the state-of-the-art infrastructure brings with it foam recycling technology and the ability to produce polyols from recycled foam. Consisting of two key components – a new esterification reactor and a glycolysis system utilizing INFIGREEN® recycled polyol know-how – this project is poised to respond to the demand for performance and costs while addressing environmental concerns of dumping waste foam into growing landfills. The esterification plant was successfully completed in the first quarter of 2015 and the glycolysis system is targeted to be commissioned in the third quarter of 2015.

Did You Know?

Following the investment, Emery Oleochemicals LLC won the Cincinnati USA Partnership Growth Award for enhancing the economic quality of our region in 2013.

Loxstedt, Germany

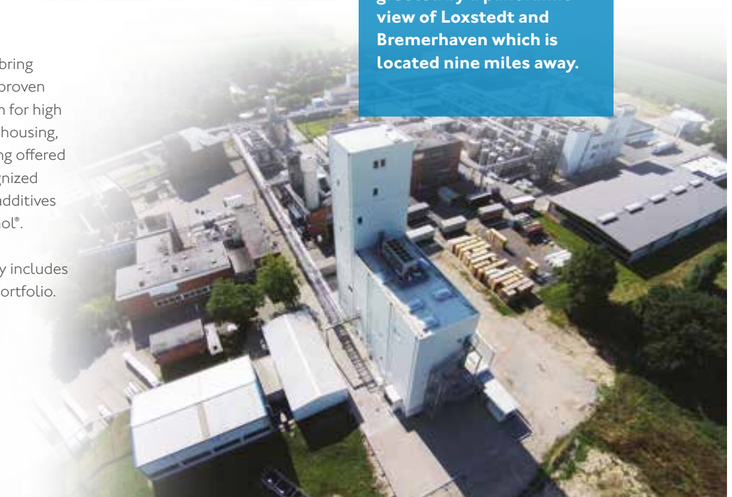
Pioneering solutions in renewable polymer additives

The Beading Tower is the landmark in Loxstedt. An "exception development" permit was required to build this tower to its height of 42m. The tower has no elevator and when employees go up the seven floors on foot, they are greeted by a panoramic view of Loxstedt and Bremerhaven which is located nine miles away.

Emery Oleochemicals' recent USD18 million investment in Loxstedt was geared to expand Emery's market penetration in polymer additives, and was based on existing proprietary technology and market know-how. The investment facilitated the construction of an additional esterification plant and beading tower, designed to produce additives in a unique form that are advantageous to the market by being dust-free and with improved fluidity.

These expansion projects bring together over 60 years of proven technology and innovation for high growth industries, such as housing, construction, and packaging offered through its globally-recognized high performance plastic additives brands, LOXIOL® and Edenol®.

Future plans for this facility includes a growing bio-lubricants portfolio.



Telok Panglima Garang (TPG), Malaysia

Maturity in basic chemicals drives expansion in specialty portfolio

When Emery Oleochemicals decided to refine its business model and focus on manufacturing market-based solutions, approximately USD135 million was allocated to grow its reach in Asia Pacific, particularly in the home and personal care, bio-lubricants and plastics additives segments. Key projects include:

Esterification facility billed as Asia Pacific's first "integrated green polymers additives facility" producing innovative, sustainable additives solutions suited to the packaging, building, construction, electronics, and plastic toy industries. These solutions are sold through our leading brands LOXIOL® for internal and external lubricants, and release agents; and EDENOL® for special plasticizers. They are the highest quality products and are customizable for customer needs in Asia Pacific, drawing inspiration from the experience and technical know-how of the sister site in Loxstedt, Germany. The site went on stream in 2012.

Methylester Fractionation plant to further support the production of fatty alcohols manufactured for the oleobasics *(commodities)* business. Methylesters are fed into the fatty alcohol site. Engineering and construction of the plant started in 2012 and was successfully commissioned in early 2014.

Specialty ester facility established as a joint venture with AK ChemTech, a leading Korean-based chemical company supplying to the local consumer market. The entity, called Emery Aekyung, produces mainly a range of specialty co-surfactants used in personal care products. An on-going project that began in 2013 is expected to be commissioned in the third quarter of 2015.

Sulphation process facility built in partnership with sulphation technology leaders, Desmet Ballestra, to produce specialty fatty alcohols for household and personal care products such as detergent, washing liquid and shampoo. The engineering and construction of the facility started in 2012 and was successfully completed in 2014.

This suite of projects offer benefits from the global view of both our shareholders, PTT Global Chemical and Sime Darby Plantation, who have a strategic focus on Research and Innovation and product development initiatives in renewable-based chemistry – a testament to Thomas Emery Sr.'s vision set in 1840.

ahead

Dr. Twitchell set the precedent for avid research and development at Emery Oleochemicals. Since then, our scientists continue to achieve technological advancements that are pioneering in the chemicals industry.

Where incredible discoveries are made.

While Dr. Ernst Twitchell's laboratory would be considered rudimentary in today's terms, his visionary approach to research was ahead of his time. Applying what was likely a healthy dose of curiosity, patience and thoroughness, his place in the annals of chemistry was guaranteed following his pioneering work during his tenure with the Emery Candle Company.

Two generations later, Jack Emery invested in a new laboratory (*Building 53*), replacing an earlier modest research facility, and dedicated it as the Twitchell Memorial Laboratory. The company has never looked back since. Emery scientists developed hundreds of new products which ranged from polyamides used in nylon to esters used in lubricants and plasticizer applications, to mention a few.

The laboratory size more than doubled with the addition of the annex, Building 53A, which opened in 1970. The combined space was more than 100,000 square feet and the technical staff grew to more than 80 by the mid 1980s. Later, one of the more significant milestones in research was achieved with the first industrial-scale production of alkyl polyglycosides in Cincinnati (*during Henkel's management*), which are used in making mild surfactants for household, industrial and institution detergent formulations.

Our Cincinnati site again drew the attention of the international chemical industry by becoming the world's sole producer of azelaic acid based on natural raw materials, used as a base material for plastics production.

Groundbreaking event for the construction of the Annex to the Twitchell Memorial Laboratory, completed in 1970

Today, one of the key components to successfully roll out our growth strategy is to provide tailored, sustainable solutions to meet varying needs of our global customers. High-performance products designed for niche and performance applications that match or exceed stringent environmental and regulatory requirements, are results we envision by investing into our network of Technical Development Centers (TDC). Mostly purpose-built, each of these TDCs will host Global Centers of Excellence, as well as regionally-focused Product and Application Development teams, backed by state-of-the-art lab equipment and existing technical service centers located throughout our global operations.

Cincinnati

Providing support for all the chemical processes used in our North American production lines while driving the development of new solutions, the TDC was initially built using 2,000 square feet of repurposed warehouse space. It was constructed to host a small team focused on supporting the product development work associated with the bio-based polyols project - work that founded our Eco-Friendly Polyols business platform.

Pioneering innovations at the TDC

Manufacturing complex, aerial view

Exhibiting at UTECH 2014, North Carolina, USA

In 2013, the TDC grew once again to take on the INFIGREEN® technology *(acquired in the same year)* based on recycling scrap polyurethane foam, the Research & Innovation team also grew. While this technology made us one of the few companies that can offer both bio-based and recycled polyols, recent strategic management decisions meant that our Cincinnati operations will also focus on growing its Agro Green and Bio-Lubricants businesses – becoming Centers of Excellence for the company, globally. This necessitated yet another expansion of the region's TDC. Construction on the third phase of the TDC is expected to be complete by the end of 2015.

STLE 2013, Detroit, Michigan, USA

Loxstedt

The Loxstedt TDC, with its dedicated labs for product development, application testing and quality control, has been designated the company's Global Center of Excellence for Green Polymer Additives. Established in 2013, it resides on an 8,600 square feet complex and is intended to meet the growing demand for high quality, sustainable solutions in the packaging, construction and coatings industries.

Our LOXIOL® brand started in 1957 and is a word combining "LOX" from its production city "Loxstedt" and "IOL", a word-play on "oil".

Developing innovative solutions in polymer additives

Manufacturing complex, aerial view

Chinaplas 2015 held at Guangzhou, China

Traditional Roofing-In ceremony of the TDC (2012)

Site visit with Mayor of Loxstedt, Detlef Wellbrok (fourth from right) and senior representatives from villages around Loxstedt (2014)

Telok Panglima Garang (TPG)

The primary function of the Product and Application Development team is to focus on regional product development centered on solutions for the home and personal care, bio-lubricants, agrochemicals and specialty derivatives. Currently housed in a space of 3,000 square feet, it is the Center of Excellence for the Home and Personal Wellness business platform and also has capabilities in application testing and quality control that facilitates customizing products for niche uses and environment-friendly requirements.

Delivering sustainable solutions in Home and Personal Care

Manufacturing complex, aerial view

Showcasing RSPO-based solutions at incosmetics 2014 Bangkok, Thailand

This site includes Roundtable on Sustainable Palm Oil (RSPO) certified manufacturing facilities for both Mass Balance palm oils *(allows for mixing of RSPO and non-RSPO certified palm oil at any stage in the supply chain)*, and Segregated palm oils *(requires complete separation from conventional products during the manufacturing process)* which are increasingly sought after by leading manufacturers in the food, home and personal care industries.

"It's not enough for us to adopt new technologies as they are discovered by others. We want to be the one leading the frontier of research and development in oleochemicals; thus, to be able to set superior standards for quality and sustainability in our industry. Our Centers of Excellence and regional Product and Application Development teams are not merely a means to that end; they are the cornerstones of our innovative spirit."

Douglas da Silva Rosa
Senior Vice President and Chief Technology Officer

An exemplary business like Emery Oleochemicals considers ‘giving back’ not as a result of financial success, but the hallmark of a responsible business. Throughout our global operation, we believe in adding value and making a difference in the lives of our employees and communities in equal measure.

Passion For Our Community

society

Our ability to carry out business legitimately, with accountability and in a socially and environmentally responsible way, paves the way for our license to operate and mutually prosper with the society around us.

The foundation of Emery Oleochemicals' passion for community betterment started with our founder and his sons, who all shared a common belief in contributing towards the societal development of the Cincinnati community. Thomas J. Emery's wife, Mary Emery, perhaps best embodied the family's philanthropic values, and together, this famous Cincinnati couple went on to change the city in ways that have left a lasting mark, and we remain thankful for that benevolent spirit today.

Of the various contributions the Emery family has made, probably the most impact in the Cincinnati community was made in the arts and in causes relating to young people's issues – the latter likely to be in memory of Thomas J. and Mary's children who passed away at young ages.

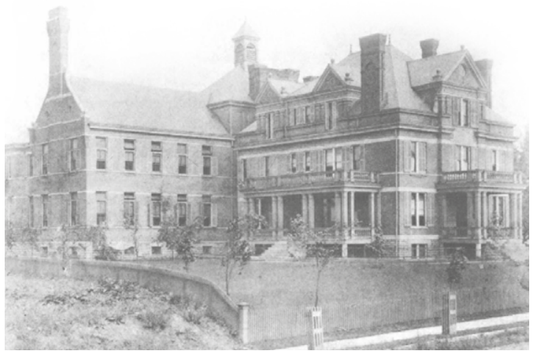
"In his charities, he was systematic and liberal. He made it a point never to refuse to give for a worthy object, or to permit himself to be asked the second time. He seemed to regard it a privilege to contribute towards relieving the wants of his fellow creatures, or to promote the general interests of the community."

Excerpt of an article on Thomas Emery Sr., Cincinnati Daily Gazette

Improving children's healthcare

Wanting to change what was, at that time, a hospital with conditions "bad for children", Mary Emery and other local residents contributed to opening a better facility in a rented three-bedroom house in Walnut Hills *(circa 1884)*.

Later, Thomas J. and John J. Emery donated one acre of land and financed the construction of a new building for the Children's Hospital located in Mount Auburn, on two conditions: (1) that no discrimination as to race, creed or color should limit or restrict admission, and (2) the poorest patient should receive as good care as any, and the best possible. Opened in November 1887, the hospital is today called the Cincinnati Children's Hospital Medical Center and is one of the oldest and most distinguished pediatric hospitals in the United States.



The Children's Hospital located in Mount Auburn (1887)

Fulfilling wishes

Serving 1,400 youths daily for over 185 years, the St. Joseph Orphanage is the oldest and largest mental health agency in Cincinnati for behavioral health and educational treatment for children. The agency offers educational, in-patient and out-patient treatment services as well as day treatment, residential, and therapeutic foster care services.

Our employees have supported St. Joseph's mission for years by participating in the annual Christmas Toy Drive. The orphanage sends a wish list of toys, clothing, or general needs to the Emery participants. Ornaments are created with a child's name and his/her gift wish on each. These ornaments are hung on Christmas trees placed in key areas of the Cincinnati plant. Employees pull ornaments from the trees and shop for the items, which are then gathered up and delivered to the orphanage in time for the annual Christmas party.

Through our team members' generosity, we have been able to fulfill the wish of every child at St.Joseph's every year.

Play space for communal engagement

In 1999, in conjunction with the 100-year anniversary celebrations of our Loxstedt facility, we helped fund a school playground renovation project. The community was very appreciative of our commitment in extending help wherever we can.

Hügel und Grotten statt kahler Asphalt

Neu gestalteter Schulhof in Loxstedt eingeweiht

Loxstedt. „Los Papa, komm endlich". Ungeduldig zerrt der sechsjährige Phillip, ein Erstklässler, an der Hand seines Vaters. Beide stehen vor dem Tor der Grundschule in Loxstedt und während Papa noch ein wenig mit einem Bekannten schwatzt, möchte Phillip ihm doch so gerne den neuen Schulhof zeigen, auf dem er nun in jeder Pause herumtoben kann.

Was der Schüler seinem Vater leuchten möchte, sucht wirklich seinesgleichen. Wo noch vor Monaten eine kahle Asphaltfläche lag, findet sich nun eine farbenfroh gestaltete Spiellandschaft, mit Hügeln, Grotten, Kletterbäumen und vielen tollen Spielgeräten.

Etwa 170 000 Mark hat sich die Gemeinde Loxstedt die Umgestaltung des Schulhofes kosten lassen, als Ergebnis, so sagte Bürgermeister Klaus Kalisko in seiner Ansprache, „das nur erreicht werden konnte, weil alle Beteiligten an einem Strang gezogen haben. Und noch dazu in

Gedränge herrschte, als die Kinder ihre in der Projektwoche entwickelte „Multimediaschau" vorführten. Der Beifall der Zuschauer in der vollbesetzten Pausenhalle sprach für sich.

Dialogues that engage

We take great strides to engage with the communities in the vicinity of our sites. For instance, our Malaysia office hosts leaders from the surrounding area of our plant every quarter, to discuss environmental and societal issues, and develop action plans to tackle issues within our respective scope of responsibilities. The wellbeing of the residents who live near our factories is paramount.

Regular Community Dialogue, Malaysia (2013)

In Cincinnati, the Emery Oleochemicals/BASF Community Advisory Panel (CAP) was formed in 1993 with the purpose of serving as a forum for open discussion between representatives of the plant and citizens of St. Bernard, Elmwood Place, Winton Place *(now Spring Grove Village)* and Winton Terrace communities. A strong platform to build trust between the companies and the communities, the panel meets about six times a year.

CAP membership reflects the diversity of the community it represents. There are member participants for all the communities and they include environmentalists, emergency responders, civic leaders, health care providers, educators, business leaders and elected officials. New members are added with an eye to keeping this diversity. Historically, the program has seen changes at the site as company names changed and as Cognis divided into two companies with the forming of the joint venture that has become Emery Oleochemicals and the subsequent sale of Cognis to BASF. After twenty-one years, CAP continues to draw leaders from the many neighborhoods surrounding the plant and enjoys lively, informative meetings.

Home-cooked meals at Ronald McDonald House (2013)

Compassion in trying times

Families from all over the world come to the Cincinnati Children's Hospital Medical Center seeking life-saving treatment for their critically ill or injured children. Located across the street from Cincinnati Children's Hospital Medical Center is The Ronald McDonald House, a charity that provides families with a "home away from home" so they can stay close to their hospitalized child at little to no cost.

The Cincinnati Ronald McDonald House provides 78 families a night with a comfortable bedroom, meals, activities, play areas, laundry facilities, computers with WiFi and more. With these comforts taken care of, the families can focus their attention solely on their hospitalized child.

Emery Oleochemicals has pledged to support the Cincinnati Ronald McDonald House in a number of ways. We have "adopted a room" to provide families with a temporary home while their children receive treatment. We also participate in annual events such as the Ronald McDonald House Golf Classic as an Eagle Sponsor, and the Red Tie Gala.

Our team members also volunteer their time to cook lunches and dinners at the house and feed the families who are there, allowing both employees and families to meet and spend time bonding, an important gesture in what are often trying times for the families. At other times, team members pack goodie bags consisting of healthy snacks to grab on the run. It often contains activity kits for siblings of the child receiving treatment who may also be living there.

These rewarding on-going programs are important to our team members, providing them a humbling avenue to give back to the community.

EVOLUTION OF A LEGACY

"I have had the privilege of preparing and serving meals to families staying at the Ronald McDonald House. In the midst of what has to be such a difficult time in their lives, the families still stop to express their gratitude to us for our time and their meal. The Ronald McDonald House is absolutely amazing and provides such a wonderful service to these families. It is both humbling and rewarding to play a small role in providing a bit of normalcy – dinner with their family – during their stay."

Evette Bentley
Quality Data Management Coordinator – North America

"Volunteering at the Ronald McDonald House always makes me realize how blessed I am and how I feel the need to do so much more. I say this because I have never had to experience a doctor telling me that my child could die due to an illness. The range of emotions a parent goes through is something I can't even begin to imagine. With the generosity of Emery Oleochemicals in providing the ingredients, we are able to cook and serve either lunch or dinner to the residents at Ronald McDonald House. This makes me feel good – to be able to let them relax and enjoy a meal even though it is only for a very short period of time. I am very proud to work for a company that does this charitable donation by providing a place for these families to stay and not have to worry about that part of their journey in hopes of healing their sick child."

Sam Carter
Warehouse Coordinator – North America

Ronald McDonald House Charities

youth

Improving the lives of children is a subject especially near and dear to our heart, and it began with an orphanage in 1895.

Striving for equal care and opportunities

In 1895, John J. and Thomas J. Emery donated $50,000 in the name of their father, Thomas Emery Sr., to erect a new building for the Orphan Asylum for Colored Children. In 1920, Mary Emery donated $25,000 for an addition to the building in his name. The center cared for both orphans and children whose parents could not physically or economically care for them, and was renamed Riverdale Children's Association in 1944 and later Harlem Dowling-Westside Center. More importantly, the Emery family's early involvement signaled their belief in providing equal opportunity in areas of education, healthcare and safety, where they could. Today, this belief system still stands true and can be seen across various initiatives targeted towards the welfare of children and youths.

Colored Orphans Asylum, Cincinnati (1926)

Science for tomorrow's generation


KREISANZEIGER

Spielerisch für Chemie begeistern

Loxstedter Schule erhält Experimentierkasten

Educators often lament on the challenge of encouraging students to explore the world of science, sometimes viewed as 'dreary' by youngsters. To pique their curiosity and interest, the Loxstedt team donated chemistry experimental kits to elementary school kids, to boost the school's educational efforts in science and math subjects. The kit provides experiments that teach students the fundamentals of chemistry, and focus primarily on the solubility of substances in water, driving home the value of natural-based chemicals and raising their environmental awareness.

Students Excellence Award (2014)

At the SMK Telok Panglima Garang secondary (high) school located approximately 1.5 miles from our factory, Emery Oleochemicals has provided tuition, supplied revision books and teaching tools to the school over the last three years. In a program called the "Emery Class", resident school teachers are engaged to help to facilitate the learning of science, math and languages, aside from the regular government school curriculum.

In preparing them as the workforce of the future, students are also taught problem solving, analytical thinking, and time management, with the view of improving their ability to work independently and as a team. Through the Emery Oleochemicals-funded outbound motivational camps, various activities help to also nurture their self-confidence, encourage focus and discipline, and instill positive values such as perseverance, commitment and determination that go beyond classroom-learning, especially as many of the children come from challenging home environments.

Emery Oleochemicals' team members volunteer time to mentor the children at various stages of the school year. The program's success is evidenced yearly, with the gradual increase in the number of exam top scorers, and more importantly, through the personal development and positive mindsets of the youths.

Striving for equal care and opportunities

"Our involvement with government schools between 2002 and 2008 actually began with a simple idea of providing extra funds to primary school children, so as to further encourage them to continue studying and not get distracted by the social standing of their often financially burdened family. The good results we achieved inspired us to then kick off the high school program in 2011 and in this initiative, students coming from poor homes or have learning difficulties were prioritized. We have only heard good words from teachers and families alike, and seeing the students grow in their confidence and achieve improved results make us volunteers very, very proud. This has also changed the way I raise my children and encourage them to be successful in whatever they do."

Ramlan Sukerman
Manager, Regional HR Controlling & Admin

"Earth Bag" by the Special People Foundation

We are extremely pleased to call ourselves avid supporters and advocates of the Special People Foundation (SPF) from Thailand. SPF was founded in 2006 to assist people with special needs across the nation, by providing aid, education and rehabilitation services to help them overcome challenges and live fulfilling, self-reliant lives.

A special part of the SPF program is the Earth Bags, which are painted by the special people as a means of artistic expression as well as a source of income.

Knowing that most of these artists have physical disabilities - but have not allowed that to hinder themselves from creating beautiful art - makes these handicrafts even more inspiring. These high-quality, durable bags are fashioned from sturdy, natural material (naturally!) and are distinct from one another, as they are painted by hand, by different people.

Emery Oleochemicals regularly buys the bags that are illustrated with special themes related to our identity; for example, the environment, personal care products, the animals from the Cincinnati Zoo which we sponsor, and many more. Each of the bags comes with information about the humble SPF organization and a brief introduction to the artist; we hand these bags out to visitors and VIPs, and during special events to share this important cause with others.

"The paintings come from their hearts to you..."

earth

We grow and create value by acting sustainably to achieve planet habitability, people prosperity and financial profitability.

Just like other businesses, we are faced with the challenge of ensuring that in meeting the needs of today, we do not compromise the ability of future generations to meet theirs. To this end, at Emery Oleochemicals, we believe in creating long-term stakeholder value by always looking at the bigger picture, composed of environmental, social and economic elements.

While we may have an established Sustainability framework, formalized in 2012, the longevity of our company, started by Thomas Emery Sr. 175 years ago, is testament to the relevance of our natural-based chemicals business and the successful implementation of initiatives that drive our responsible operation and community development efforts. In 1979, an oil binder product from Henkel was the first product to be labeled an environment-friendly item. By 1985, another product – a wood varnish - would be similarly categorized. In 1990, a systematic rollout of the company's environmental protection program was taught to employees worldwide. As technology, manufacturing processes and consumer needs became more advanced, so did our interpretation of "sustainability". By the time Emery Oleochemicals came to be in 2009, responsible practices in all key areas of our operations were set.

act sustainably

"Act Sustainably is a rallying call to our people to consider the sustainable impact of their decisions and what they can do to contribute to a better world."

Sourcing with Respect Guidelines

"The SRG is an aspirational platform towards building a sustainable business with our partners. As we are part of bigger global supply chains, we need to ensure that our suppliers behave in a responsible and ethical manner. We will work with our partners and suppliers to improve our collective environmental, social and financial performance through process efficiencies and innovation."

Hans Peter Eckardt
Chief Sustainability Officer

The Sourcing with Respect Guidelines (SRG) is a leap forward in our sustainability initiative. Introduced in 2014, it was a response to the growing need for supply chain transparency. We integrated the ten principles of the United Nations Global Compact (UNGC) into our SRG framework, which includes issues on human rights, labor, environment, corruption and others. The SRG helps to identify our suppliers that meet current social and environmental standards; if they do not, we work together with them to achieve these standards. In doing so, we are encouraging better practices across the entire industry.

Launch of Sourcing With Respect Guidelines with United Nations Global Compact (UNGC) representative (2013)

Being a preferred partner

We don't just work with any partners; we work with the right partners – those that share the same aspirations as we do in using science to make the world a better place. Ethical operations matter to us as well.

Future-proofing our environment

We take great pride in looking after our future generations. This legacy again stems from the Emery family, who had dedicated a significant portion of their time and wealth in committing to this cause. In continuing this belief system in today's modern times, we internalize our respect for the environment and biodiversity around us by striving to continuously reduce our ecological footprint. This includes projects surrounding operational efficiencies and manufacturing processes.

Where butterflies thrive

At one time, our North American site struggled to obtain the National Pollutant Discharge Elimination System (NPDES) permit as required by the Ohio Environmental Protection Agency. We eventually developed a strategy to not only eliminate the shortfall, but to go well beyond the required criteria. It involved the construction of a bio-swale, a type of storm water filtration system that consists of a belt of plants to naturally cleanse the rainwater before it is discharged into the Mill Creek. The project broke ground in April 2012, in conjunction with the International Earth Day celebrations. This piece of nature in our plant quickly developed into a biodiversity hotspot and was certified as a wildlife habitat by the American National Wildlife Federation and as a Monarch Waystation by the American Monarch Watch.

Geo-thermal energy for heating and cooling

Our Loxstedt site is equipped with a modern geothermal heating and cooling system. By harnessing natural conditions, we are able to offset the consumption of natural gas. The pipes go almost 90 meters deep into the ground and a heat transfer fluid is circulated by pump under pressure, which is closely monitored with several probes. This has led to savings of EUR 10,000 annually.

Maximizing yield while reducing waste

Improving product yield and minimizing waste that has to be disposed from our manufacturing process have always been top priorities. We continuously optimize our processes, valorize waste and monitor our production carefully. At our Düsseldorf site, waste disposal in 2013 was reduced to just 7% – 20% of the original level – and in some significant parts of production, we have achieved zero waste that require disposal. This has led to savings of over USD1 million, demonstrating that sustainable operations and profitability can be achieved simultaneously.

Bio-gas production from waste water treatment

In 2014, the Telok Panglima Garang plant brought on stream a new water pre-treatment plant that uses the anaerobic (*rather than aerobic*) process to treat waste water. This process is significantly more efficient. It results in: lower consumption of chemicals and energy; a 90% reduction in surplus sludge; a higher production of methane, which is then channeled back to bio-gas boilers used in the manufacturing process. The plant is able to treat 50m³ of waste water daily.

Sungai Manggis Conservation

We have taken upon ourselves to ensure a clean and healthy environment by adopting a river that runs near our Telok Panglima Garang site. Our efforts include the initial removal of debris and rubbish, maintaining the riverbanks, monitoring the river from our site to the water gate, and ensuring that the discharge of treated waste water from our site is in compliance with environmental standards. We further engage with the surrounding community and organize regular dialogues with the residents from the neighborhood to raise awareness on river conservation.

Before the program

After the program

Tree Planting on Jalan Perak

As part of our efforts to counteract urban heat islands and as a show of support in the battle against global warming, we planted trees along the main thoroughfare that leads to our Teluk Panglima Garang site – Jalan Perak. It was a cohesive community effort that involved our employees, the community and local agencies, and was an immense effort that brought together about 200 volunteers. Approximately 500 tree saplings and hedges were planted along a stretch of 1,300 feet. The lush greenery has also contributed to the beautification of the road that runs through industrial, commercial and residential areas.

Embedding sustainable supply chain

Thomas Emery Sr. saw opportunity in the meat rendering industry, by converting what people considered 'waste' into value-added chemicals that go into many things that people cannot do without today. This forward-thinking philosophy inspires us to drive what is fundamental to our business - supply chain. Over the last few years in particular, we have been focused on implementing sustainable practices into an efficient and responsible supply chain management system.

Roundtable on Sustainable Palm Oil (RSPO)

RSPO is a non-profit organization that unites stakeholders in the palm oil industry, and it has set the global standards for sustainable oil palm products. RSPO is focused on upholding eight principles: transparency, compliance with laws, long-term financial viability, implementation of best practices, environmental responsibility, responsible employment, responsible new planting, and continuous improvement. Our Telok Panglima site has undergone stringent process and facility upgrades leading up to its RSPO Supply Chain certification and subsequent Mass Balance and Segregated accreditation.

Ensuring sustainable product stewardship

Our innovation DNA has been a part of us since Dr. Twitchell began developing natural-based solutions and received his first patent in 1888. The increasing global demand for resources, coupled with diminishing reserves, environmental degradation, geopolitical uncertainty and the threat of climate change are all factors influencing the production of our natural-based products. In line with our drive towards greater sustainability, the vast majority of our products are derived from renewable palm and tallow-based feedstock, making our products regenerative in nature, and offer "greener", cleaner and safer alternatives to the other options on the market.

The Snowden Potato Trial

In 2013, our Agro Green EMERLIFE™ product was put to the test in what came to be called the Snowden Potato Trial. Early potatoes of the Snowden variety were planted at Barooga, a small town in the riverside in Victoria, Australia. After a month, the test crop was treated with four applications of EMERLIFE™; both the test crop and control crop received the same irrigation and inputs in other aspects. When the crop was ready for harvest, the potatoes that were treated with EMERLIFE™ were found to be more uniformed in growth, higher in quality, and yield (by 10.2%). From the trial, we could extrapolate a significant increase in returns for the farmer.

Bio-based & Recycled Polyols

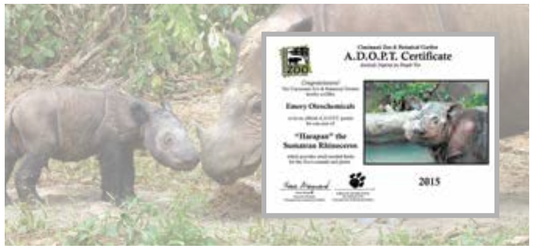
Our first-of-its-kind EMEROX™ bio-polyols are derived from renewable feedstock offering a viable alternative to petroleum-based polyols, which currently dominate the market. Our EMEROX™ products are cost-effective, have a wide range of applications that other polyols cannot offer, and leave a smaller carbon footprint in the manufacturing process and throughout the entire product lifecycle. Our INFIGREEN® polyols are another cutting-edge product that is produced from our proprietary chemical process that uses scrap polyurethane foam as a raw material, reducing the amount of foam put into landfills. Our INFIGREEN® products can be customized for a variety of applications and are, in fact, more cost effective than petroleum-based polyols.

Lubricants derived from renewable raw material

The LOXIOL® brand has a history that goes back 60 years, and is known to be one of the most effective lubricants for the processing of plastic materials, especially PVC. We have continued to develop and improve our LOXIOL® products, and in recent years, developed new internal lubricants - LOXIOL® G 59 and LOXIOL® G 62 - for the converting of PVC based on renewable raw materials, which are phthalate-free. These lubricants were derived from about 85% renewable raw material, show excellent processing properties and serve as effective external lubricants with low volatility.

Bio-lubricants for strict environmental regulations

In 2014, we used advanced 'ester technology' at our upgraded Loxstedt facility to create two new DEHYLUB® products. The precise synthesis from raw materials, polyols, monoacids, and diacids, have enabled the industrial scale production of ester products with specific viscosity profiles. Amongst other applications, these products can potentially be used in the formulation of Marine Lubricants, which are in great demand by marine vessel operators. This demand is driven by the US Environmental Protection Agency (EPA) tightening regulations for the use of lubricants in sea-to-oil interfaces. Our new ester products' superior eco-profile and high performance meets and exceeds the requirements set out by the EPA and surpasses the needs of our customers.



Cincinnati Zoo and Botanical Gardens

The Cincinnati Zoo and Botanical Gardens officially opened in 1875 and was at one time in danger of closing down. Mary Emery, wife of Thomas J. Emery, helped to rescue the floundering zoo by donating $125,000 to help purchase the zoo and turn it into a non-profit organization. She also agreed to pay one half of the operating deficit for the next five years.

Emery Oleochemicals is proud to continue this tradition by donating to the Zoo's A.D.O.P.T. program, which helps to provide food, toys and enrichment for the animals. We donate to adopt the Sumatran Rhino, the Malayan Tiger, and the Indian Elephant on a yearly basis. We also support Project Saving Species by recycling our old cell phones, which reduces the demand for coltan, a mineral mined in gorilla habitats.

The Zoo continues to set the standard for conservation and preservation of wild animals. The research conducted here has made the Zoo an international leader in the protection and propagation of endangered animals; most notably

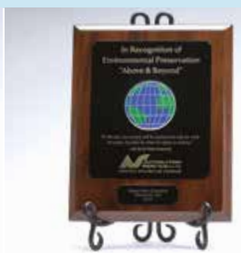
through their C.R.E.W. (Center for Research of Endangered Wildlife), which focuses on signature projects with small cats, endangered plants and rhinoceroses. The Cincinnati Zoo's research led to the birth of the first Sumatran Rhino calf in captivity in 112 years. The zoo also works with many other endangered species of plants and animals.

Awards & Certifications

We have won multiple Cincy Magazine Manny Awards and Ohio Chemistry Technology Council (OCTC) Awards over the last several years for our efforts in reducing emissions, and for environmental stewardship. This includes the OCTC Eagle Award, which is presented to the recipient whose performance is judged exemplary among the group of distinguished Excellence Award recipients.

We have also won awards for our work with the EPA and the University of Cincinnati in creating the bio-swale solution to eliminate contaminated runoff from our plant into the Mill Creek.

Our sites have received awards and certifications from local authorities and governing bodies that acknowledge our commitment to the preservation of the environment. Our Malaysian division won the 2007/2008 CICM Responsible Care Award, receiving the Gold Award for Community Awareness and Emergency Response Code, and Merit for Pollution Prevention Code.



guide

As much as our people pour
their passion and dedication into
helping Emery Oleochemicals
achieve our goals,
we are also as committed
to helping them grow,
personally and professionally.

Commitment To Our People

talent

Our workforce comprises employees from across the world who contribute unique ideas and approaches. This has played no small part in Emery Oleochemicals' success today.

"It is vital to build a workforce that supports Emery Oleochemicals' strategic business goals. At the same time, we must not neglect to get to really know the people who make up the foundation of our company and put their interests first, where they belong."

Shamsol Anuar
Chief Human Resource Officer

Putting our people first, and the communities they come from a close second

We are committed to taking care of our employees by fostering an atmosphere of openness, cooperation and trust, and in providing a safe and secure workplace. The Emery Oleochemicals' Core Values reflect the standards by which we treat employees throughout our global operation and define our commitment to embracing all forms of diversity in culture, lifestyle, behavior, thinking, and heritage.

Perhaps none of the Core Values defines our workforce as well as 'Trust' does, a value often billed as the hallmark of great workplaces and created through management credibility. Jack Emery's approach to a more 'focused leadership' helped turn around a company that lost sight of its business goals. Following the footsteps of his forefathers, his respect for employees and belief in the importance of a safe and happy workplace was tantamount to Emery Industries' global success. The degree of pride, and levels of authentic connection and camaraderie employees felt through Jack's single-mindedness and honesty were likely to have helped see the workforce through a tough economic landscape in the USA following "Black Tuesday", when the stock market crashed on October 29, 1929.

Today, our workforce is one of our competitive advantages, positioning Emery Oleochemicals for the next level of success as we expand our specialty chemicals business. Dedicated in our purpose of fostering greater innovation, creativity and shaping a high-performance work culture, our employees define who we are – a united group of unique individuals who embody the Emery spirit of learning, growing and succeeding, in and out of the office.

GLOBAL TALENTS

Dragon Boat Race, Düsseldorf

groom

We help our people grow from good to great.
The better they are, the better we become.

Employee career development and personal growth

We place great importance on talent management and have established strong policies and procedures on human capital development and planning, recruitment, employees' retention, performance, rewards, organizational development and succession planning. Formal appraisals are conducted periodically, guided by the Performance Management System using the Balance Scorecard approach. Strategies are translated into operational objectives and Key Performance Indicators (KPIs), which are used to measure performance and become a basis for rewarding employees.

We place emphasis on education, remunerations, employee welfare and organizational development, training and development. This includes leadership advancement initiatives to enhance the quality, ability and competencies of our employees to help prepare them for future leadership. We encourage the learning of new skills as part of our strategic action for succession planning. These programs are designed to ensure business continuity and prepare for business expansion.

GROWING TALENTS

Milestone service awards

Emery Oleochemicals believes in the recognition of loyal service of employees. Each year, we celebrate employees who reach service anniversary milestones in five-year increments. We have employees who have reached up to 45 years of service so far.

Uniquely styled to local cultures, employees are invited to an award ceremony filled with fun! In Cincinnati, employees with over 40 years of service are invited back every year to the dinners which often include a historical slide show of popular culture from each milestone year. Entertaining and nostalgic, the slideshow is the highlight of the evening and is eagerly anticipated by everyone. The Service Awards Dinner is an evening that allows the employee to be recognized on an individual basis, outside of the workday, for their contributions and loyal service.

Driving economic growth and job creation

During the Great Depression, the real estate company, Thomas Emery's Sons, provided a much needed source of income to many workers by continuing construction of the Carew Tower, in a time when most other property developments were halted.

The sustainability of our business, providing jobs and raising the economic standards of the community wherever we are, matters. After the USD50 million expansion of our Cincinnati plant, 30 new high-skilled jobs in the areas of chemical processing and R&D were created and our efforts were lauded by JobsOhio, the non-profit organization leading economic development efforts in Ohio. As a result of this project, Emery Oleochemicals won the Cincinnati USA Partnership Growth Award for enhancing the economic quality of our region in 2013.

The Malaysian Economic Transformation Programme (ETP) was formed to elevate Malaysia to a developed nation status by 2020 with one of the key focus areas being high value oleochemicals derivatives. Emery Oleochemicals was the first private company to participate in this program. We have invested USD118 million in growth projects, which have created 86 high-value jobs and are expected to contribute USD45 million of Gross National Income to the Malaysian economy.

The growing investments in the area of innovation will see expansions throughout our Technical Development Centers and laboratories as our product development pipeline is strengthened. This will translate to the increase of highly-skilled workers in our talent pool, forming a key driver to the success of our specialty chemicals business.

Project approval signing between Emery Oleochemicals and JobsOhio marks continued economic and social development efforts (2013)

engage

Emery Oleochemicals started as a family business, and we like to think of ourselves today as still one big family.

Families and communities form the cornerstones to our success

We believe there is immense value and a direct correlation to engagement that goes beyond the immediate workplace and our business. For us, therefore, "community" is an all-encompassing word that includes the families of our employees as much as it does the people who live near our operations.

Did You Know?

The first cafeteria at the Cincinnati site was built in 1941.

Annual holiday galas, dinners and festive seasons

Various holidays and festivals are celebrated by our team members around the world and often feature traditional themes.

Holiday Party

Deepavali Celebration 2015

Employees provide Christmas gifts for the children of Saint Joseph orphanage

Family affairs

Coney Island is a small amusement park and waterpark located on the banks of the Ohio River, which has been a fixture of Cincinnati history since 1886. Its slogan "Coney Has It" is apt, for the park hosts our employees and their families to play volleyball, participate in cornhole tournaments, play tug-of-war, BINGO, and other games as well as enjoy the roller coasters, rides, swimming pool, and paddle boats that Coney Island has to offer. With all the fun that is to be had, it makes this annual event a memorable outing for Emery Oleochemicals to host.

Emery Oleochemicals Friends & Family Get Together, Cincinnati

On the 50th anniversary of our LOXIOL® brand in 2007, our employees in Germany and their families were treated to a great bash, with food, drinks and fun activities for children.

50th Anniversary LOXIOL® Event, Loxstedt (2007)

self

Our employees' personal wellbeing is of utmost importance to us that it takes precedence over everything else.

Safety comes first, without compromise

At Emery Oleochemicals, we consider safety, health & environment (SH&E) as one of our top management priorities. Each and every plant in our global operation has set up detailed SH&E policies, strategic tasks and targets based on industry leading benchmarks, such as ISO, OHSAS, and local regulatory requirements.

As manufacturers of natural-based specialty chemicals, we are aware of the risks our operation can bring and the responsibilities we have in ensuring a safe workplace for our employees. It is a work ethic that has a long track record, starting from pioneering practices and success since the early 1970s, and including, in 1995, when Henkel published the newly formulated "Principles and Objectives of Environmental Protection and Safety", binding the responsibilities of an international organization towards its employees. In 1997, SH&E standards were made mandatory and worldwide SH&E audits also began.

In 1994 , both our Cincinnati and Telok Panglima Garang sites achieved the ISO 9002 Certification for "Model for quality assurance in production, installation and servicing". A few years later, the ISO 14001 Certification for our sites would signal the importance of additionally managing our environmental responsibilities.

Emery Oleochemicals has in the last seven years received various prestigious awards in environmental management, including the Eagle Award (2011 & 2012, Cincinnati), Biggest Break Through Award (2012 & 2013, Cincinnati) and the TÜV Plant Safety Award (2011, Düsseldorf).

Occupational Health and Safety (OHS), on the other hand, are standards within which we ensure the health and safety of all employees in the workplace, by investing in employee education, training, health and wellness, and established plant safety standards. This includes engagement with external authorities – i.e., fire and police departments and other emergency responders.

We also monitor "Lost Time Accidents." In Cincinnatiwe reached the milestone for one million hours worked with zero lost time accidents in November 2013; in June 2015, we reached two million hours – a first time accomplishment for our North American site. The size of the facility does not in any way determine its outlook on the importance of site safety; Loxstedt, a facility manned by fewer than 100 employees, prides itself on a strong safety track record as well. Key health and safety metrics for the company in 2013 saw a positive reduction of Total Recordable Injury Rates (TRIR) by 60%.

Health & Safety Award 2013

"Our work is never so urgent or important that it cannot be done safely."

Our motto from the Safety, Health & Environment Policy

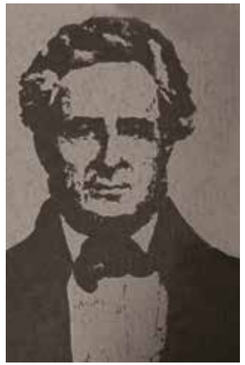
Malaysian Police giving safety talk (2014)

gracious

The Emery family showed us
that true wealth lies in kindness,
compassion and generosity.

A Heart Of Giving

The Emery family made a profound impact on not just our company, but also in contributing towards the betterment of the local community. We take this opportunity to memorialize them and their contributions, and more importantly, remind all of us of the human values and entrepreneurial spirit on which our company was founded.



Thomas Emery Sr. (1789 -1857)

In the early 1830s, Thomas Emery Sr. left Bedford, England, with his wife, Kezia, and infant firstborn in tow, crossed the Atlantic Ocean to settle in a town that bordered the Ohio River. His second son would be born in America. Little did anyone know then, the arrival of this enterprising man and his progeny would be the good fortune of the boomtown that was Cincinnati.

Emery & Davenport was amongst the numerous businesses which foundered during the recession that lasted from 1837 until the mid-1840s, and Thomas found himself saddled with heavy debts. As the financial situation recovered, he picked himself up again and started his new business of manufacturing lamp oil from lard in 1840. His business would grow in strength and size, and the long journey towards becoming the Emery Oleochemicals we know today had begun. He would also become a leading figure in the Cincinnati real estate market. With his fortunes reestablished, Thomas hunted down his old creditors from twenty years earlier, and repaid them in full, with interest.

Unfortunately, while a new manufacturing facility was being put into operation for the first time, Thomas fell through an open hatchway to his death on December 30, 1857. The next day, the Cincinnati Daily Gazette wrote :

"Mr. Emery was a quiet and unassuming man, strictly conscientious in all his dealings, and was much respected by his fellow citizens. In his charities, he was systematic and liberal. He made it a point never to refuse to give for a worthy object, or to permit himself to be asked the second time. He seemed to regard it a privilege to contribute towards relieving the wants of his fellow creatures, or to promote the general interests of the community."

Thomas J. (1830-1906) *and* John J. Emery (1835-1908)

Thomas J. Emery

John J. Emery

Thomas J. and John J. Emery joined their father's business in the mid-1850s and after his death, continued under the name Thomas Emery & Sons, and later, Thomas Emery's Sons. Business continued to grow rapidly for the brothers who inherited their father's business acumen. In 1887, the Emery Candle Company was incorporated, continuing in motion a legacy of growth and innovations in renewable-based chemicals.

With the management of the flourishing Emery Candle Company in good hands, the brothers turned their attention to the Cincinnati real estate market where their contributions mark the landscape of the city throughout history and even today; they include the Emery Hotel and Arcade (*where Carew Tower now stands*), and the Palace Hotel (*known today as the Cincinnatian Hotel*), which contained one of the country's first isolated incandescent light generating plants as well as one of the first successful electric elevators. The Emery brothers frequently used the services of Cincinnati's renowned architect, Samuel Hannaford, whose distinct style made masterpieces of the Emery buildings. They also built the city's first skyscraper, the nine-story St. Paul Building, and theirs were among the first apartment buildings to showcase the value of light and air, becoming exemplars for competitors. When the electric streetcar was introduced to the city, their property holdings spread to the hilltop neighborhoods surrounding downtown.

The apples didn't fall far from the tree, for the Emery brothers shared their father's commitment to the betterment of the Cincinnati community. They donated land and financed the construction of a new Children's Hospital building, with the stipulation that there should be no discrimination in the admittance and treatment of patients, and they funded the construction of a new building for the Orphan Asylum for Colored Children. The Emery family's long involvement with the Cincinnati Art Museum began with Thomas J. and John J, who both made significant contributions of money and art pieces in their lifetimes.

After their deaths, Wendell P. Dabney, editor and publisher of the Union, wrote: *"They were of that English stock whose blood ever fired at oppression, whose heart ever warmed to charity. Their recognition of the brotherhood of man caused them to refuse donations to any cause that recognized the color line, and so their princely gifts to institutions carried with them the admission of colored people."*

Their positive impact on the Greater Cincinnati community has undoubtedly lived on until this day.

Mary M. (Hopkins) Emery
(1844-1927)

Fate would bring Brooklyn-born Mary Hopkins and her family to Cincinnati where she would meet a man who shared her spirit of compassion and generosity. Mary and Thomas J. Emery wed in 1866, and the marital union bore two sons – Sheldon (1867-1890) and Albert (1868-1883). Great misfortune befell the family when Albert passed away in a sledding accident at the age of 15 and Sheldon succumbed to illness at the age of 23. After the loss of their children, Mary and her husband poured their hearts into philanthropy, especially in causes for children. They contributed to the Children's Hospital, the Orphan Asylum for Colored Children, and the Fresh Air Farm and Society, which was a refuge for indigent women and children.

Following her husband's passing in 1906 and with no heirs to her fortune, Mary's charitable works increased greatly and she would come to be known as one of the most generous people in Cincinnati. Amongst her generous contributions are the creation of the "Thomas J. Emery Free Day Endowment" fund which provides free admission to the Cincinnati Art Museum on Saturdays; her large donation to the Ohio Mechanics Institute, one of the oldest technical schools in the country, funded the construction of a new building to house the Institute, as well as the Emery Auditorium, which boasted legendary acoustics comparable to Carnegie Hall. She was the largest benefactor of the "Babies Milk Fund" that provided milk to poor children. Mary's generosity helped the University of Cincinnati's Medical College establish the departments of pediatrics and pathology. In the Fall of 1920, she was awarded an honorary Doctor of Laws, making her the first woman to receive an honorary doctoral degree from the University of Cincinnati.

Of all her great works, her most renowned contribution is likely the creation of Mariemont, a planned community just a few miles east of downtown Cincinnati. The development was an archetype of its time, embracing modern

The Emery Angel stands in Cincinnati's Spring Grove Cemetery, dedicated by Mary and Thomas J. Emery to the memory of their sons. The inscription at the base reads: "May this memorial to Sheldon and Albert Emery gather many into Christ's flock."

principles and illustrated how people of moderate means could still enjoy city living. According to a brochure, ***"The stadium, recreation field, and parks provide every sort of amusement and outdoor exercise, all free to the people as Mrs. Emery's gift to her fellow-citizens."***

Even after her death in 1927, her last will and testament reflected her amazing generosity, as it bequeathed her entire art collection to the Cincinnati Art Museum, which was housed in a special building funded by her.

For a detailed biography of Mary Emery and her philanthropic gifts, see "Rich in Good Works, Mary M. Emery of Cincinnati" by Millard F. Rogers, Jr.

John (Jack) Josiah Emery, Jr.
(1898-1976)

Jack Emery was only ten when his father, John, passed away. His family had moved from Cincinnati to New York well before his birth, so he grew up in the East Coast quite detached from the family's business in Cincinnati. After completing his studies at Harvard and Oxford, which was temporarily interrupted by WW I in which he served as an ensign in Naval Aviation, he had planned to return to New York to start a career in publishing but first came to Cincinnati to settle some family business matters in 1924.

"I found that the Emery Candle Company was just a grease factory with obsolete equipment and a sort of Dickensian office. I decided the family was going to go bust if someone didn't hang around and fix things up," he later said. So began his more than 50-year involvement in managing the Emery business in Cincinnati. Under Jack's guidance, the company grew in leaps and bounds, propelling it into the international corporation that Emery Oleochemicals was built upon. On the real estate front, Jack continued to initiate many large developments in and around Cincinnati, including the Carew Tower and Netherland Plaza which opened in 1930 and remained the tallest building in Cincinnati until 2010. The construction of the Carew Tower started one month before "Black Tuesday" in 1929. When many other developments had halted, the 49-story building was completed in just 13 months, by rotating crews working 24 hours a day, 7 days a week, providing workers a source of income in an extremely difficult time.

Jack was also involved in establishing the Citizen's Planning Association in 1948 to implement a Master Plan for the development of the city and its infrastructure. Jack continued his family's extensive involvement with the Cincinnati Art Museum, serving as Trustee and President, as well as being a major benefactor over a 50-year period. His generosity and involvement in various art and music institutions in the country earned him honorary doctorates in music and humane letters.

By the mid-1920s, Cincinnati's government had grown infamous for being one of the most corrupt in the United States. Since early on, Jack took an active role in reforming the city's politics, as a founding director of the Charter Party, a purely local independent political party devoted to reforming the corrupt governmental practices in Cincinnati.

During his lifetime, Jack was named a ***"Great Living Cincinnatian"*** by the Cincinnati Chamber of Commerce. In 2000, he was inducted into the Greater Cincinnati Business Hall of Fame, recognizing his outstanding contributions to business and civic involvement in the Cincinnati area. ***He once told his children, "It is important to work toward leaving the world a better place. Since we are fortunate, and are able to do something, it is our responsibility to do it."*** He passed away at his Peterloon Estate (*http://peterloon.org/*), which is still maintained by a foundation set up by the family, for the pleasure and enjoyment of the Cincinnati community.

More information on the Emery family members is available at the Mariemont Preservation Foundation, the Cincinnati Historical Society, and the Cincinnati Public Library.

Our legacy was chronicled in the preceding pages, not to compel us to keep looking back but to use it as a source of inspiration as we move forward. Knowing our heritage will propel our business and technological discoveries to greater heights, but keep our intentions grounded; it will navigate us into new markets, but keep us anchored in high standards. The past 175 years has been a defining chapter in the Emery story, but the story is about to get even more interesting, indefinitely.

Emery Oleochemicals' Management Team 2015

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Group Chief Executive Officer

Peter Hans Piringer
Senior Vice President and Chief Business Officer

Douglas da Silva Rosa
Senior Vice President and Chief Technology Officer

Jay Taylor
Senior Vice President, Chief Manufacturing Officer and Regional General Manager, North America

Hans Peter Eckardt
Vice President, Chief Sustainability Officer and Regional General Manager, Europe

Shamsol Anuar
Vice President and Chief Human Resource Officer

Carsten Mondrup Larsen
Group Chief Strategy Officer

Vattanaroj Charoenpitaks
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