

Press Release

Emery Oleochemicals Opens Technical Development Center and strengthen innovation in sustainable, bio-based polyol solutions

Housing state-of-the-art lab facilities, center marks expansion in research and development capabilities for the company's Eco-Friendly Polyols business

Cincinnati, OH, USA (April 1, 2016): Emery Oleochemicals, the world's leading natural-based chemicals producer and largest oleochemicals manufacturer in North America, has announced the completion of its new 7,500 square foot Technical Development Center (TDC). This center will also serve as the Global Center of Excellence for Emery Oleochemicals' Eco-Friendly Polyols business, dedicated to providing the polyurethane and polyisocyanurate industry with innovative bio-based and recycled content polyol solutions.

Currently focused on expanding its reach in the United States' bio-based polyols market, the TDC is located at Emery Oleochemicals' Cincinnati manufacturing facility - where the company's North America headquarters is also located. Realization of this project underscores Emery Oleochemicals' commitment to growing its product portfolio in sustainable, high-performance polyol solutions for a broad range of polyurethane applications marketed through its specialized Eco-Friendly Polyols business.

Mark Kinkelaar, Global Business Director, Eco-Friendly Polyols said of the opening, "Our polyols lab housed in the TDC is specifically designed to develop and deliver high performance polyols, from raw materials to final application. We work directly with our customers to develop the right product for their specific application; optimizing performance, improving environmental properties while reducing time-to-market. Backed by a strong team of in-house technical experts, the Eco-Friendly Polyols business is well-positioned to serve the industry's needs for performance and sustainability."

The new lab provides Emery Oleochemicals' Eco-Friendly Polyols customers with value-add services through its dedicated Application Testing and Development facilities, in addition to a co-research infrastructure to provide differentiated solutions for other Business Platforms. Staffed by a dedicated technical team utilizing state-of-the-art equipment, the new lab capabilities include:

- Custom polyol development and scale-up of EMEROX® (bio-based) and INFIGREEN® (recycled content) polyols
- Formulation and applications testing for flexible foam, rigid foam and C.A.S.E. applications
- Full service analytical lab support for polyol development and analysis including NMR, FTIR, SPME, GC/MS, HPLC, HPLC/MS, DSC and TGA.

In addition, the TDC reinforces the company's global strategy of becoming a key player in the natural-based specialty chemicals market, explains Douglas da Silva Rosa, Chief Technology Officer of Emery Oleochemicals.

"Our continued investments here in the US are integral to Emery Oleochemicals' broader research and innovation agenda, allowing us to build a portfolio of differentiated products in the marketplace and drive new growth opportunities. Creative solutions, such as the INFIGREEN® recycled content polyols, will be the cornerstone to the success of our innovation pipeline. By committing to growing our research and capabilities and in-house technical expertise enables us to be more agile in our operations; converting insights into innovative and sustainable products," Silva Rosa continued.

Advancing innovations in sustainable polyol solutions

Production of Emery Oleochemicals' sustainable and innovative polyols is supported by the company's completion of its \$50 million bio-based and recycled content polyols plant in September 2015. This plant, also located in Cincinnati, Ohio is the world's first industrial-scale facility capable of producing EMEROX® polyols and utilizing scrap foam as feedstock to manufacture the new INFIGREEN® range of sustainable polyols.

Emery Oleochemicals' Eco-Friendly Polyols business markets the EMEROX® renewable polyols, manufactured using ozone acids via the company's proprietary ozonolysis technology. Products in this range are engineered for performance in flexible and rigid foams and C.A.S.E. applications. Six products from this line have earned the USDA BioPreferred® program's Certified Biobased Product label, which verifies that these polyols contain the amount of renewable bio-based content that meets or exceeds levels set by the USDA.

INFIGREEN® recycled polyols are manufactured via glycolysis of polyurethane scrap and is higher valued, environmentally responsible solution due to its ability to use scrap rigid or flexible polyurethane foams (based on ether or ester chemistry). Of particular interest in the marketplace is the potential for closed loop processing for a foam producer's scrap – offering "your own chemistry" back to the customer thus minimizing issues of variability and formulation change.

Emery Oleochemicals' Eco–Friendly Polyols business will be exhibiting its range of renewable and recycled content polyol solutions for flexible foams, rigid foams, INFIGREEN® recycled content polyols and C.A.S.E. applications in Booth #520 at UTECH North America 2016 taking place on April 6th & 7th at the Charlotte Convention Center in North Carolina. The company's Eco-Friendly Polyols technical experts will also be presenting white papers during the conference portion of UTECH: Day 1, April 6, Theatre 2, 4 pm – "Performance Comparisons of Renewable Resource Polyols in Flexible Slabstock Polyurethane Foam" and Day 2, April 7, Theatre 2, 11:30 am – "Novel High Bio-based Content Polyester Polyols for Rigid Pour-in-place and Spray Foam Applications."

About Emery Oleochemicals Group

A leading producer of natural-based chemicals made predominantly from natural oils and fats such as plant-based oil and tallow. We offer an extensive product portfolio, including renewable solutions for the Agro Green, Bio-Lubricants, Eco-Friendly Polyols, Green Polymer Additives, Home & Personal Wellness and OleoBasics markets. With revenue of US700million (2015), the company is headquartered in Malaysia and has manufacturing plants spanning three continents - Asia Pacific, North America, and Europe. Emery Oleochemicals' global operations are backed by a diverse workforce and an extensive distribution network covering over 50 countries worldwide.

About Emery Oleochemicals LLC

The "Emery" name was established in 1840, as a tallow and candle business founded by Thomas Emery Sr. Today, Emery Oleochemicals LLC operates in a premise spanning the village of St. Bernard and city of Cincinnati, in Ohio operational since 1885. Employing 300, the site is credited for many pioneering innovations including the early forerunners of today's broad line of surfactants, and lubricants and greases for the aviation, automotive and industrial applications. Through its dedicated Centers of Excellence, the operation focuses on solutions for the bio-polyols, bio-lubricants and bio-pesticides industries, supported by its mainstay basic oleochemicals business.

For more information, please log on to www.emeryoleo.com

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