Press Release

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VERTELLUS SPOTLIGHTS AT K 2016 INNOVATIVE ADDITIVE SOLUTIONS FOR POLYMERS THAT PROMOTE SUSTAINABILITY AND RECYCLING

DÜSSELDORF, Germany — Oct. 20, 2016 — To help customers address increasing public demand and toughening regulatory requirements regarding material safety and sustainability, Vertellus is spotlighting here at K 2016 (hall 5, stand C08-2) its ZeMac® copolymers and Citroflex® bio-based plasticizers. The company, a leading global supplier of additives to the plastics and polymer industries, offers a robust portfolio of specialized solutions – including a range of additives that provide proven alternatives to potentially harmful phthalate plasticizers – to help compounders and manufacturers stay ahead of key environmental and health trends. Other Vertellus advanced material technologies raise the performance properties of recycled polyamide (PA), polyethylene terephthalate (PET), thermoplastic polyurethane (TPU) and other resins to encourage their reuse in compounds. They are also used as size regulators in microencapsulation to create temperature controlled mattresses and clothing, and in the construction of energy-efficient buildings by improving insulation performance.

“The plastics industry faces growing pressure to demonstrate that it is part of the solution – not the problem – for better safety and sustainability,” said Ashok Adur, Ph.D., global commercial development director, Plastics at Vertellus. “We help our customers respond by offering targeted additives to meet challenges, ranging from reducing raw materials and energy consumption to protecting consumer health. Adding to their value, our products can also help customers increase profits and differentiate their materials from competitors. These solutions are a key part of Vertellus’ active participation in the American Chemistry Council's Responsible Care® initiative.”

Supporting Environmental Efforts

The United States alone accounts for 5.35 billion pounds of PET plastic a year, less than a third of which is recycled, according to the National Association for PET Container Resources.[1] ZeMac powders and masterbatches – including a new line of masterbatches launched here today – promote greater use of post-consumer and post-industrial PET and other resins by improving their performance and processability. By incorporating up to 40 percent recycled resin with virgin polymer, compounders can cut costs while helping to reduce raw material use and avoid landfilling.

At cost-effective low loadings, ZeMac copolymers raise a recycled resin's performance properties, including flexural modulus and strength, tensile strength and elongation, impact resistance and heat deflection temperature (HDT). They can be used with PA, PET, TPU, polybutylene terephthalate (PBT), polycarbonate (PC), polyoxymethylene (POM) and biopolymers.

Vertellus additives also improve compounding and processing of recycled materials. For example, ZeMac® E60-P powder and new ZeMac® Extend P62 masterbatch compatibilize PA and recycled PET, which are normally incompatible, to reduce material costs and increase profits. The new ZeMac® Extend L65 masterbatch raises the viscosity of recycled PA to make it suitable for injection molding. In blow molding and profile and film extrusion applications, the new ZeMac® Extend L68 masterbatch ensures even distribution of the additive to produce smooth, uniform surfaces with no gels.

Other areas where ZeMac provides sustainability include temperature control and energy conservation. Here, ZeMac® E400 powder and ZeMac® Solution S407015 and S403520 water-based grades are used for the microencapsulation (surrounding very tiny droplets or particles of liquid or solid material with a continuous film of polymeric material) of phase-change materials. This technology has applications in maintaining mattress and clothing temperature for comfort and building insulation to support green building initiatives.

Providing Safer Options

Increasing restrictions are being placed on the use of phthalate-based plasticizers. For example, in December 2014 the U.S. Environmental Protection Agency issued a Significant New Use Rule under the Toxic Substances Control Act for DnPP, a phthalate used in polyvinylchloride (PVC) plastics shown to cause developmental and/or reproductive effects in laboratory animals.[2]

To avoid the use of traditional phthalates, many manufacturers are turning to iso-phthalates and bio-based plasticizers. Vertellus' Citroflex bio-based plasticizers are manufactured without the use of phthalates and have proven their safety in food-contact and medical applications. As a leading plasticizer on the market today derived from bio-based citric acid, Citroflex products offer a non-toxic, biodegradable option for biopolymers and specialty polyvinyl chloride (PVC) used in food packaging, medical applications, childrens' toys and coatings.

Vertellus technology experts are on hand at the company's booth for the duration of K 2016 to answer questions and provide additional details about the company's full line of innovative additives for the plastics and polymer industries.

About Vertellus

Vertellus is a specialty chemicals company focused on the manufacture of ingredients used in pharmaceuticals, personal care, nutrition, agriculture, industrial and a host of other market areas affected by trends favoring sustainable technologies and chemistries. Vertellus is the largest, global producer of pyridine and picolines, specialty pyridine derivatives, DEET, castor oil derivatives and systems and a world leader in vitamin B3 and citrate polymer additives and systems. Vertellus benefits from a technically advanced global manufacturing base and has approximately 1000 employees. Vertellus is headquartered in the United States in Indianapolis, Ind. More information on Vertellus can be found at www.vertellus.com.

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[1]Peter S. Green. The Life of a Plastic Water Bottle. http://www.bloomberg.com/news/photo-essays/2015-02-27/the-life-of-a-plastic-water-bottle

[2] U.S. Environmental Protection Agency, “Fact Sheet: Di-n-pentyl phthalate (DnPP)”, https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/fact-sheet-di-n-pentyl-phthalate-dnpp

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PHOTOS: Vertellus's ZeMac® Copolymers and Citroflex® Bio-based Plasticizers Help Customers Address Increasing Public Demand and Toughening Regulatory Requirements Regarding Material Safety and Sustainability

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