



October 22, 2012

## **Metabolix to Present Data Showing that New Biobased PHA Polymeric Modifiers Significantly Improve Performance Characteristics of PVC**

CAMBRIDGE, Mass.--(BUSINESS WIRE)-- [Metabolix](#), Inc. (NASDAQ: MBLX), an innovation-driven bioscience company focused on delivering sustainable solutions for plastics, chemicals and energy, today announced that new biobased PHA (polyhydroxyalkanoate) copolymers significantly improve the mechanical and environmental performance characteristics of polyvinyl chloride (PVC). PVC is a polymer with a diverse use pattern ranging from construction materials to medical applications and an estimated global demand of approximately 35 million metric tons per year. Dr. Yelena Kann, Ph.D., senior polymer scientist at Metabolix, will present the findings in a presentation titled "New Biobased PHA Rubber Copolymers for PVC Modification" at the Society of Plastics Engineers' Vinyltec 2012 conference on Wednesday, October 24, 2012.

Metabolix developed a series of PHA copolymers and demonstrated that they were miscible with PVC resins. Based on miscibility and performance requirements, Metabolix researchers created specific compositions of PHA copolymers to improve plasticization, impact and processing modification of rigid and flexible PVC.

- In plasticization, PHA copolymers performed as high molecular weight, readily dispersible plasticizers and enabled formulation of compounds with low additive migration, low extractables, volatile loss and staining.
- In impact modification, PHA rubber copolymers outperformed the best available MBS core/shell impact modifiers and did not compromise PVC transparency or UV stability.
- As a processing aid, the metal-adhering properties of PHA copolymers promoted homogeneous shear melting of PVC particles and prevented overheating and degradation.

Together, the results demonstrate that these newly developed biobased PHA copolymers can produce significant improvements in the modification and processing of PVC.

"The significant performance benefits PVC gained from blending with PHA copolymers underscores the versatility and value of Metabolix's PHA technology," said Oliver Peoples, chief scientific officer and vice president of research at Metabolix. "These developments will allow us to broaden the addressable market opportunity for our materials, beyond our traditional focus on those markets requiring biodegradation."

Metabolix worked closely with AlphaGary, a Massachusetts-based custom compounder of PVC and TPE/TPO materials, to validate PHA polymeric modifiers in PVC.

"We are pleased with what we have seen in these new polymeric PVC modifiers and are beginning to test them in current high-value applications. They combine effective impact modification with good transparency and are made from renewable feedstocks," said Mark Jozokos, global R&D manager at AlphaGary.

"The introduction of new PHA products for use as modifiers in PVC is a significant step in Metabolix's strategy for biopolymers that focuses on high-value applications," noted Bob Engle, vice president business and commercial development, biopolymers at Metabolix. "We plan to manufacture these new PHA products in the 10KTPA facility that Metabolix is establishing at Antibioticos in Leon, Spain. We expect samples of the polymeric modifiers will be available to ship to customers from this facility in early 2013."

You can find more information about Dr. Kann's presentation at Vinyltec [here](#).

### **About Metabolix**

Metabolix, Inc. is an innovation-driven bioscience company delivering sustainable solutions to the plastics, chemicals and energy industries. Metabolix is developing and commercializing Mirel<sup>TM</sup> and Mvera<sup>TM</sup>, a family of high-performance bioplastics which are biobased and biodegradable alternatives to many petroleum-based plastics. Metabolix's biobased chemicals platform utilizes its novel "FAST" recovery process to enable the production of cost-effective, "drop-in" replacements for petroleum-based industrial chemicals. Metabolix is also developing a platform for co-producing plastics, chemicals and energy from crops. Metabolix has established an industry-leading intellectual property portfolio that, together with its knowledge of advanced industrial practice, provides a foundation for industry collaborations.

For more information, please visit [www.metabolix.com](http://www.metabolix.com). (MBLX-G)

### **Safe Harbor for Forward-Looking Statements**

This press release contains forward-looking statements which are made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The forward-looking statements in this release do not constitute guarantees of future performance. Investors are cautioned that statements in this press release which are not strictly historical statements, including, without limitation, statements regarding the ability to develop, manufacture and market PHA as polymeric PVC modifiers, constitute forward-looking statements. Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated and are detailed in Metabolix's filings with the Securities and Exchange Commission. Metabolix assumes no obligation to update any forward-looking information contained in this press release or with respect to the announcements described herein.

### **Media and General Inquiries:**

Metabolix, Inc.

Lynne H. Brum, 617-682-4693

[LBrum@metabolix.com](mailto:LBrum@metabolix.com)

or

Schwartz MSL Boston

Keith Giannini or Kirsten Swenson, 781-684-0770

[metabolix@schwartzmsl.com](mailto:metabolix@schwartzmsl.com)

or

### **Investors:**

ICR

James Palczynski, 203-682-8229

[james.palczynski@icrinc.com](mailto:james.palczynski@icrinc.com)

Source: Metabolix, Inc.

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