BASF, Cargill & Novozymes Target Bio-Based Acrylic Acid

LUDWIGSHAFEN, Germany, MINNEAPOLIS and COPENHAGEN, Denmark, Aug. 17, 2012/PRNewswire/ -- BASF, Cargill and Novozymes have signed an agreement to develop technologies to produce acrylic acid from renewable raw materials.

Presently, acrylic acid is produced by the oxidation of propylene derived from the refining of crude oil. BASF - The Chemical Company, Cargill and industrial biotechnology company Novozymes will develop bio-based technologies to produce acrylic acid from renewable feedstocks.

"The cooperation combines BASF's global market strength and innovation power with the excellent know-how and competencies of Novozymes and Cargill who are global leaders in their respective industry segments. Together we are uniquely positioned to more sustainably meet market and society needs," said Michael Heinz, Member of the Board of Executive Directors of BASF SE.

New Milestone towards Commercialization

Novozymes and Cargill have collaborated on renewable acrylic acid technology since 2008. Both companies have worked to develop microorganisms that can efficiently convert renewable feedstock into 3-hydroxypropionic acid (3-HP), which is one possible chemical precursor to acrylic acid. BASF has now joined the collaboration to develop the process for conversion of 3-HP into acrylic acid. BASF is the world’s largest producer of acrylic acid and has substantial capabilities in its production and downstream processing. The company plans initially to use the bio-based acrylic acid to manufacture superabsorbent polymers.

The three companies bring complementary knowledge to the project. Novozymes, the world-leader in industrial enzymes, has years of experience with developing technologies for bio-based production of chemicals used in plastics, ingredients, etc.

"BASF and Cargill are global leaders in their industries and we are very excited to partner with them," says Novozymes CEO Steen Riisgaard. "By offering bio-based alternatives to fossil-based products we will take a big step towards a more sustainable economy."

"Cargill is pleased to bring its global expertise in sourcing renewable feedstocks and large-scale fermentation to this collaborative project," said Chris Mallett, Cargill Corporate Vice President of research and development. "The work with BASF and Novozymes underscores our commitment to developing innovative new technologies that help our customers meet their business objectives."

Acrylic acid is a high-volume chemical that feeds into a broad range of products. One of the main applications is in the manufacture of superabsorbent polymers that can soak up large amounts of liquid and are used mainly in baby diapers and other hygiene products. Acrylic acid is also used in adhesive raw materials and coatings. The annual global market volume of acrylic acid is around 4.5 million tons with a value of $11 billion1 at the end of 2011. The market has been growing at a rate of 4 percent per year.

For more information, please visit www.basf.com *[1],* www.cargill.com *[2] or* www.novozymes.com *[3].*

SOURCE: Cargill; BASF; Novozymes

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