

NEWS RELEASE

Aduro Clean Technologies Provides Results on Testing of Hard to Recycle Crosslinked Polymers

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LONDON, Ontario, May 16, 2024 (GLOBE NEWSWIRE) -- **Aduro Clean Technologies Inc.** ("Aduro" or the "Company") (CSE: ACT) (OTCQX: ACTHF) (FSE: 9D50), a Canadian technology company using the power of chemistry to transform lower value feedstocks, like waste plastics, heavy bitumen, and renewable oils, into resources for the 21st century, is pleased to share exciting results from preliminary tests achieved with deconstructing crosslinked polymers, using the Company's Hydrochemolytic™ Technology.

Crosslinked polymers are pivotal to numerous industries, thanks to their exceptional durability, chemical resistance, and mechanical strength. They are integral to many products ranging from automotive tires to household adhesives, protective coatings, and medical devices. Their critical applications span sectors such as aerospace, automotive, construction, and electronics, where their unique properties are indispensable. Roughly 2.5 million metric tons of XLPE is produced annually representing a \$6.4 billion industry growing at **6.5% CAGR to \$8.7 billion by 2028**.

However, the same characteristics that make crosslinked polymers so valuable also create significant recycling challenges. Unlike thermoplastics, these materials do not melt under heat, making them difficult to recycle by traditional technologies. High-temperature technology processes typically result in char and fuel gas, which are unsuitable for repurposing into new materials. This challenge underscores the pressing need for innovation in chemical recycling technologies.

On **March 27th, 2024**, Aduro announced it engaged with a building materials manufacturing company to investigate the fate of crosslinked polymers under Hydrochemolytic™ conditions. The client provided a sample of crosslinked polyethylene (XLPE), a waste stream from its local production facilities, on which Aduro investigated the application

of its proprietary technology for chemical recycling of this difficult-to-recycle material.

Aduro is excited to report promising results from the preliminary tests with yields up to 84% of lower-molecular-weight hydrocarbons, predominantly in the C8 to C28 range. These results confirm the effectiveness of HCT in breaking down complex polymers like XLPE, which have high thermal stability and complex decomposition pathways, into valuable hydrocarbons.

This work not only solidifies the Aduro pathway into the building materials sector, but also opens the door to very sizeable markets for crosslinked polymers to be recycled. Now Aduro considers tire rubber and elastomeric materials as additional potential feedstock to demonstrate the versatility of HCT in chemical recycling of polymeric materials. Accordingly, the Company is actively engaged in discussions with potential engagements in these sectors.

"This milestone confirms our preliminary assessment that we can provide customizable solutions tailored to industry specific requirements. We were able to transform XLPE waste into high-quality liquid hydrocarbons, with an impressive conversion yield, enhancing the material's lifecycle and providing a reliable feedstock for refineries. This development addresses a critical challenge in the industry and opens new avenues for sustainable material management," commented Eric Appelman Chief Revenue Officer at Aduro.

"We established our customer engagement program to work directly with our clients to investigate and develop solutions for their specific needs," commented Ofer Vicus, Chief Executive Officer at Aduro. "The results from the crosslinked polymer tests are very exciting. It is another example of the ability of HCT to deconstruct and create value from hard to recycle materials which have proven to be challenging for traditional approaches."

About Aduro Clean Technologies

Aduro Clean Technologies is a developer of patented water-based technologies to chemically recycle waste plastics; convert heavy crude and bitumen into lighter, more valuable oil; and transform renewable oils into higher-value fuels or renewable chemicals. The Company's Hydrochemolytic™ technology relies on water as a critical agent in a chemistry platform that operates at relatively low temperatures and cost, a game-changing approach that converts low-value feedstocks into resources for the 21st century.

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Forward-Looking Statements

This news release contains forward-looking statements. All statements, other than statements of historical fact that address activities, events, or developments that the Company believes, expects, or anticipates will or may occur in the future, are forward-looking statements. The forward-looking statements reflect management's current expectations based on information currently available and are subject to a number of risks and uncertainties that may cause outcomes to differ materially from those discussed in the forward-looking statements. Although the Company believes that the assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance, and, accordingly, undue reliance should not be put on such statements due to their inherent uncertainty. Important factors that could cause actual results to differ materially from the Company's expectations include adverse market conditions and other factors beyond the control of the parties. The Company expressly disclaims any intention or obligation to update or revise any forward-looking statements whether because of new information, future events, or otherwise, except as required by applicable law.

The CSE has not reviewed, approved, or disapproved the content of this news release.

A photo accompanying this announcement is available

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