Filed by AeroClean Technologies, Inc.
Pursuant to Rule 425 under the Securities Act of 1933
and deemed filed pursuant to Rule 14a-12
of the Securities Exchange Act of 1934
Subject Company: AeroClean Technologies, Inc.
Commission File No. 001-41096

Dear Molekule Customer -

Today we announced that we have signed a definitive agreement to merge with AeroClean Technologies, Inc. (Nasdaq: AERC), a leading air hygiene technology company. The planned merger will unite two leading air purifier brands with a rigorous commitment to science-based technology, and aims to expand consumer and commercial access to clean air.

As the world grapples with an escalating climate crisis and widespread airborne viruses, the challenge of purifying indoor air is more urgent than ever before. Consumers, government leaders, and business owners understand the urgency of this clean air crisis, yet still struggle to find science-backed solutions. The proposed merger between AeroClean and Molekule signals a new clean air revolution. AeroClean and Molekule have set a high standard in purifier testing, development, and performance—together, the combined brands will seek to complement and supplement each other to improve operational efficiency, increase educational efforts, and expand clean air access.

The brands intend to combine executive teams, operations, and product lines over the coming months. The merged company will be named Molekule, Inc., and will be traded under a new Nasdaq ticker, MKUL, upon completion of the planned merger. While this is an exciting time for the company and customers alike, I want to assure you that there will be no interruptions to our business. You can still buy products on our website, your filter subscription will operate as it always has, and our customer service team is ready to support you in everything you need.

We thank you for your continued support of Molekule, and we look forward to many more years supporting you in your quest to improve YOUR indoor air quality.

Be well, Jonathan CEO

Important Additional Information

In connection with the proposed transaction, AeroClean intends to file a registration statement on Form S-4 with the Securities and Exchange Commission (the "SEC") that will include an AeroClean information statement and prospectus (the "information statement/prospectus"), and will file other documents with the SEC regarding the proposed transaction. The Form S-4 and information statement/prospectus will contain important information about AeroClean, Molekule, the merger and related matters. STOCKHOLDERS ARE URGED TO CAREFULLY READ THE ENTIRE REGISTRATION STATEMENT AND INFORMATION STATEMENT/ PROSPECTUS AND OTHER RELEVANT DOCUMENTS FILED WITH THE SEC WHEN THEY BECOME AVAILABLE, BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION. A definitive information statement/prospectus will be sent to AeroClean's stockholders prior to the consummation of the proposed transaction. AeroClean stockholders will be able to obtain the registration statement and the information statement/prospectus from the SEC's website or from AeroClean's website. These documents may also be obtained free of charge from AeroClean by requesting them by mail at 10455 Riverside Drive, Suite 100, Palm Beach Gardens, FL 33410.

No Offer or Solicitation

This communication shall not constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended, and otherwise in accordance with applicable law.

Forward-Looking Statements

This communication contains "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based upon current beliefs and expectations of our management and are subject to known and unknown risks and uncertainties. Words or expressions such as "expects," "anticipates," "plans," "believes," "estimates," "may," "will," "projects," "could," "should," "seek," "forecast," or other similar expressions help identify forward-looking statements. Factors that could cause actual events to differ include, but are not limited to:

- the risk that the transaction may not be completed;
- the ability to successfully combine the businesses of AeroClean and Molekule;
- the ability of the parties to achieve the expected synergies and other benefits from the proposed transaction within the expected time frames or at all:
- the incurrence of significant transaction and other related fees and costs;
- the incurrence of unexpected costs, liabilities or delays relating to the transaction;
- the risk that the public assigns a lower value to Molekule's business than the value used in negotiating the terms of the transaction;

- the risk that the transaction may not be accretive to AeroClean's current stockholders;
- the risk that the transaction may prevent AeroClean from acting on future opportunities to enhance stockholder value;
- the dilutive impact of the stock consideration which will be issued in the transaction;
- the risk that any goodwill or identifiable intangible assets recorded due to the transaction could become impaired;
- potential disruptions to the business of the companies while the transaction is pending;
- the risk that a closing condition to the proposed transaction may not be satisfied;
- the occurrence of any event, change or other circumstances that could give rise to the termination of the transaction; and
- other economic, business, competitive, and regulatory factors affecting the businesses of AeroClean and Molekule generally, including those set forth in AeroClean's filings with the SEC, including in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of AeorClean's latest annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and other SEC filings.

Forward looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ materially from those in the forward-looking statements as a result of various factors. Although AeroClean believes that the expectations reflected in the forward-looking statements are reasonable based on information currently available, AeroClean cannot assure you that the expectations will prove to have been correct. Accordingly, you should not place undue reliance on these forward-looking statements. In any event, these statements speak only as of the date of this release. The parties undertake no obligation to revise or update any of the forward-looking statements to reflect events or circumstances after the date of this release or to reflect new information or the occurrence of unanticipated events.