

## History and Advantages of PreventX 24/7™

In the early '70s, Dow Corning (today the world's largest mfg. of silane chemistries) added silane to quaternary ammonium compounds (quats) in an effort to improve adhesion on a variety of surfaces. From this experimentation came multiple Dow Corning patents (1980's) and the birth of a new class of durable antimicrobials effective against a wide range of microorganisms.

Dow synthesis is conducted in an end-user methanol carrier formulation that has a 30 plus year compliance rate with the US EPA regarding environmental, safety, and toxicity (DOW Corning AEM 5700 / 5772). To avoid Dow awarded patents, competitive water-based synthesis formulations appeared over the years that range in stability depending on the dilution process and/or the presence of stabilizers and additives. Please see the white paper on PreventX 24/7™ vs. Water-Based for an explanation as to why these products are considered inferior. Molecules in Water-Based products can stick to themselves, can fall out of solution, or can have reduced adherence to substrates.

Dow Corning's AEM 5700 was eventually brought to market, by agreement, in Midland, MI (Dow's home office location) under the name Aegis Microbe Shield. The market strategy was to inject the SIQUAT into articles, e.g., carpets, countertops, socks, sponges. **The blender of PreventX 24/7™** was selected by Aegis (over 20 years ago) to blend and help formulate specific application processes. Today, even though the original Aegis company dissipated, the blender used to build PreventX 24/7™ has grandfathered rights to purchase Dow's raw materials (AEM 5700 / 5772). The necessary raw materials, specialized generation equipment, and proprietary blending processes utilized for millions of dollars of white paper testing by DOW are currently used for building PreventX 24/7™. We feel this is a tremendous asset to our client base.

Also, a significant mention is our manufacturing capacity and availability of raw active ingredients. PreventX 24/7™ (EPA Reg. No. 91116-1) is built within an EPA/FDA toll blending facility. We can currently produce more than one-hundred thousand gallons of PreventX 24/7™ monthly. We have rail car access and six in-house tanker trucks available for shipping. To our knowledge, no other company producing SIQUAT can match this.

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