

## PRODUCT TEST SUMMARY

The ENVIROMADE APS 2000 Air Purifier was submitted to independent testing laboratories for third party validation of performance.

Truesdale Laboratories, located in Tustin, California was selected to test the APS 2000 Air Purifier for particle removal efficiency, room air particle reduction and ultraviolet intensity at 254 nm. Truesdale's is certified by both the EPA and FDA to perform chemical, mechanical, and microbiological testing to NSF and ASTM protocol.



Airguard research and technical center, located in Louisville, Kentucky was used to test the filters for toxic chemical removal and air flow resistance properties. Filters were tested to ASHRAE method 52.1-1992.

The ENVIROMADE APS 2000 Air Purifier was tested against real world atmospheric dust in an actual room environment as a complete product. This is important as most manufacturers pass along the ratings supplied by the manufacture of the HEPA media and never really test the filter as a finished product.

The following is a summary of the enclosed test results.

1. The ENVIROMADE APS 2000 Air Purifier effectively reduced the level of airborne particles ranging in size from 0.3 to 5.0 microns by 97% to greater than 99%.
2. Operation of the unit in a closed room with a volume of 2,000 cu.ft. (room size of 240 sq.ft.) reduced airborne particle counts of 0.3 micron particles by 63% in a period of only 40 minutes.
3. Operation of the ENVIROMADE APS 2000 on whole home tests up to 2,350 sq.ft. in size showed a reduction of particles ranging in size from 0.3 to 5.0 microns by 77.8% to 95.1% in a twelve hour period.
4. Testing shows that the large filter size maintained an air flow resistance below 0.31 inches of water column at 90 cu.ft. of air per minute.
5. Reduction of organic hydrocarbons was implemented using high levels of toluene at 85 PPM. (1) Part per million is the maximum contaminate level allowed in a chemical manufacturing facility by OSHA. Such toxic compounds would only exist in the part per billion ranges in a home environment for a point of reference. Even at elevated levels, the gas absorbing media reduced the toluene by 26% on the first pass through the filters.
6. Measurement of ultraviolet output in the 254 nm wave length at a distance of (1) inch from the lamp indicated an average output 11,700 micro watts per centimeter sq. The energy required to kill most disease causing viruses and bacteria is approximately 6,000 to 8,000 micro watts of UV light.