

## Bacterial Filtration Efficiency (BFE) Final Report

Test Article: WoodyKnows Nasal Filters White Electrostatic Cotton 143-1/Lot 1722

Study Received Date: 14 Mar 2013

**Summary:** The BFE test is performed to determine the filtration efficiency by comparing the bacterial control counts to test article effluent counts. A suspension of *Staphylococcus aureus* was aerosolized using a nebulizer and delivered to the test article at a constant flow rate. The aerosol droplets were drawn through a six-stage, viable particle, Andersen sampler for collection. This procedure allows a reproducible bacterial challenge to be delivered to test materials. This method complies with ASTM F2101.

All test method acceptance criteria were met.

BFE Area Tested: ~8.6 cm<sup>2</sup>  
BFE Flow Rate: 26.7 Liters per minute (L/min)

### Results:

Test Article Number	Percent BFE (%)
1	93.1
2	91
3	92
4	90.6
5	90.8

Note: Plate count totals for each stage are available upon request.

Mean Positive Control Count: 2,117 colony forming units (CFU)  
Negative Control Count: <1 CFU  
Mean Particle Size (MPS): 2.5 µm



Study Director

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25 Mar 2013  
Study Completion Date