



Analytical Measure : Biobased Determination using ASTM-D6866-11

Submitter:	Ms. Marianne Budin	Date received	July 25, 2011
Company:	MM Manufacturing	Date reported	July 27, 2011

Submitter label	Material	Laboratory Number	Percent modern carbon (pmc)	Atmospheric correction factor
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SavvySoap / Marvelous Marianne's SavvySoap Hand And Brush Cleaner (USDA Application# 1977)	Biobased Liquid	Beta-302999	87.2 +/- 0.4 pMC	x 0.95
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Note: % biobased = pMC x 0.95

* ASTM-D6866 cites precision on The Mean Biobased Result as +/- 3% (absolute). This is the most conservative estimate of error in the measurement of complex biobased containing solids and liquids based on empirical results. Real precision for readily combustible and homogenous materials (e.g. gasoline) and especially samples recieved as CO2 (e.g. flue gas or CEMS exhaust) can be as low as +/- 0.5-2%. The result only applies to the analyzed material. Fluctuations in carbon content within a batch of product, gasoline or flue gas must be determined separately (e.g. averaged measurements of multiple solids or liquids, and single measurement of the combination of gas aliquots collected over time). The accuracy of the result as it applies to the analyzed product, fuel, or flue gas relies upon all the carbon in the analyzed material originating from either recently respired atmospheric carbon dioxide (within the last decade) or fossil carbon (more than 50,000 years old). "Percent biobased" specifically relates % renewable (or fossil) carbon to total carbon, not to total mass or molecular weight. Mean Biobased estimates greater than 100% are assigned a value of 100% for simplification.