New ASTM Standard Supports Ethanol as a Cooking Fuel

A first-of-its-kind standard from ASTM International aims to support the introduction of ethanol as a cooking fuel, a step which will help people in developing countries access and use a safer alternative to wood, charcoal, and other traditional fuels.

Each year, millions of people get sick or die due to household air pollution from cooking with traditional fuels, according to ASTM member Brady Luceno, director, POET Clean Cooking. Fuels such as ethanol would reduce or eliminate such health risks, she said. In addition, renewable fuels such as ethanol can help mitigate global deforestation caused in part by the overreliance on traditional fuels such as wood and charcoal.

“As the benefits of ethanol as a cooking fuel become more recognized worldwide, the demand for producing and selling ethanol as a clean cooking fuel will grow,” Luceno says.

The standard will indirectly support buying, selling and transporting ethanol around the world. It will also act as a benchmark for further quality control in countries where ethanol is being used.

The new standard (E3050, Specification for Denatured Ethanol for Use as Cooking and Appliance Fuel) has the potential to:

- Assist with regulatory issues in international transactions by clarifying and classifying the properties of the fuel;
- Clear confusion between denatured ethanol for cooking fuel versus beverage-grade ethanol;
- Expedite the customs approval process;
- Aid in procurement of quality fuel by buyers; and,
- Create a benchmark that will help consumers know they are buying a quality product.

“The standard is performance-based,” says Luceno. "We hope that the creation of this standard will be a tool for governments and standards bureaus worldwide."

Harry Stokes, executive director of Project Gaia, Inc., a U.S. based non-profit that champions ethanol for cooking around the globe, states “With three billion people – or half-a-billion households – that need access to cleaner, more convenient fuels like ethanol, the cooking market could actually be as important as the transportation market. This is a message we would like to convey to producers.”

Luceno notes that the composition and use of ethanol as a cooking fuel is fundamentally different from use of ethanol in other contexts, leading to the need for this new standard. For example, this type of ethanol is denatured with a bittering agent to prevent ingestion and requires a certain quality and consistency of alcohol content.

To purchase standards, visit www.astm.org and search by the standard designation, or contact ASTM.