

Cost-Effective Solution to Reduce Risk of Infection for Healthcare Workers

Sulzbach, Germany, Florence, Ky., Shanghai, PR China, Dec. 10, 2013 – Celanese Corporation (NYSE: CE), the global technology and specialty materials company, showcased at K 2013 in Düsseldorf, Germany, a new cost-effective medical application — the Injury Stop syringe that is based on Hostaform® acetal copolymer (POM), one of the medical technology polymers in the MT® portfolio.

High-performance Hostaform MT8U01 for medical applications enabled IBT systèmes médicaux généraux and Société Plastique De Savoie, both of Hte. Savoie, France, to develop a novel safety mechanism for the new safety syringe that is designed to reduce the risk of becoming infected with hepatitis B, hepatitis C and HIV following accidental needle-stick injuries. After an injection, the healthcare worker rotates a piston 90 degrees, which retracts the piston and part of the syringe, including the needle, into the barrel of the syringe where it is locked for safe disposal. This simple procedure can help prevent accidental contact with the needle tip, especially for healthcare workers in developing countries.

“A single needle-stick injury can seriously endanger life. Healthcare workers helping others are especially at risk, and, where help is required the most, conventional safety syringes are too expensive to use,” said Wendy Johnson, medical marketing manager, engineered materials.

Hostaform MT8U01 combines good processability with dimensional stability and excellent sliding properties, which enabled the development team to reduce the cost of this innovative product. At only 10 cents per Injury Stop syringe, it is more than 50 percent less expensive than conventional safety syringes. The additional cost per Injury Stop safety syringe vs. standard syringes, without protection against needle-stick injuries, is only 2 cents.

This cost saving can help medical facilities in developing countries, such as Africa and South America, effectively protect their healthcare workers from infections from accidental needle-stick injuries. This represents a significant step in the global fight against HIV, which occurs 10 times more often in 15 to 49 year-olds in Africa than in Europe, according to the World Health Organization (WHO).

Needle-stick injuries frequently result in serious consequences for health care workers. In 2002, the WHO reported that of the 35 million employees in healthcare worldwide, two million per year suffered a percutaneous exposure to infectious diseases. Just under 38 percent of the hepatitis B, 39 percent of the hepatitis C, and more than 4 percent of the HIV cases among healthcare professionals were due to needle-stick injuries according to the WHO.

“The engineered materials team at Celanese is pleased the developers at IBT systèmes médicaux généraux and Société Plastique De Savoie succeeded in this safety syringe, based on Hostaform POM, that makes this important safety technology affordable and available worldwide,” said Johnson.