

SAFETY SENSE

Protecting The Lives Of First Responders

(NAPSA)—When police officers respond to a crime and face down an assailant, chemistry has their backs, quite literally.

Just ask Officer Kyle Russell of the Alexandria, Va., police force. Russell had pulled over a motorist for driving erratically in early September. As the officer approached the passenger side of the car on foot, the driver fired his handgun at point-blank range into the officer's chest.

Kyle survived because he was wearing his bullet-resistant vest constructed of aramid fibers, a class of strong, heat-resistant synthetic fibers that stretch to absorb the force of the bullet. The vest covers the chest and back of the officer, protecting the internal organs.

"The bullet went all the way to the last level of the vest," a police spokeswoman said. While the officer received a very serious bruise from the force, "the bulletproof vest definitely saved his life."

Since 1975, aramid-containing armor, including bullet-resistant vests, flak jackets and helmets, has helped save the lives of at least 3,000 law enforcement officers and countless American service members serving in global hot spots like Iraq and Afghanistan.

"The body armor vest is as essential to police work as the gun and badge," said Chief Michael Mastronardy, a former president of the New Jersey State Association of Chiefs of Police.

This protective gear had its genesis in chemistry laboratories and in the imaginations of some of America's most prized scientists.

Chemistry also protects firefighters. Firefighters wear garments made from heat-resistant textile materials. This heat- and flame-resistant plastic helps protect firefighters at temperatures



When police officers respond to a crime, the chemistry embedded in the bulletproof vest protects them.

up to 350 degrees Celsius, or 662 degrees Fahrenheit. Many fire departments use helmets with a lightweight, protective shell made from high-performance thermoplastic. Some face shields are made of high-performance plastic, which offers excellent impact resistance, optical clarity, ultraviolet protection and abrasion resistance.

This protective equipment is put to use on a regular basis. In 2007, there were 1,557,500 fires reported in the U.S., according to the National Fire Protection Association.

"The brave men and women of the military, law enforcement and emergency response communities deserve the best protective equipment available, and we're developing it for them," said Cal Dooley, president and CEO of the American Chemistry Council, which represents the nation's major chemistry companies. "We want to help protect them with our products because they devote themselves to protecting us and our families."

For more information, visit www.americanchemistry.com.