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Aerotech Technical Institute announces the launch of its new interactive website.

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News

Ricin: The Next Biological Terror Agent?

Ricin is a toxin found in the beans of the castor plant, *Ricinus communis*. Due to its worldwide availability, toxicity, and the ease of extracting the toxin, ricin is considered to be an easily accessible biological weapon. With the recent postal findings in a mailroom of a Senate office building, it appears that ricin is back in the news. The toxin has also been found recently in other mail related incidents, such as a letter to the Department of Transportation regarding changes in truckers work schedules.

Ricin is one of the residuals from the processing of castor beans to castor oil and can be found or made in several forms including a powder, pellet, mist, or dissolved in water or weak acids. Ricin is occasionally used for medicinal purposes including bone marrow transplants and to kill cancer cells. Accidental exposure to ricin is rare. Consuming, inhaling, or being directly injected with ricin, however, can poison humans. When injected, as little as 500 micrograms (0.5 milligrams) can be enough to kill an adult, however, if inhaled or swallowed, the amount required would be greater. When ricin enters the body, it prevents the cells from creating necessary proteins, which causes the cells to die, and may result in death. Symptoms of poisoning usually occur within hours but vary depending upon the method and dose of exposure. Symptoms from inhalation may include fever, cough, nausea, and respiratory distress. Symptoms of ingestion may include severe bloody diarrhea, vomiting, severe dehydration, low blood pressure, seizures, hallucinations, blood in urine, and organ failure. Ricin poisoning cannot be transmitted from person to person, in other words, it is not contagious through normal human contact. Currently, no antidote is available for ricin poisoning.

The most famous case of ricin poisoning is that of Bulgarian dissident, Georgi Markov, in 1978. While waiting at a bus stop in

London, Markov experienced a piercing pain in his right leg. Supposedly a man behind him had jabbed Markov with his umbrella. Markov continued on to work, but later that night developed a high fever. He was hospitalized the next day for an unknown form of blood poisoning and shortly after went into shock. He died 3 days later. It was not until an autopsy was performed that a small pellet was found in his right leg and it was discovered he had been poisoned by ricin.

BTOX Analytical, a division of Aerotech Laboratories, Inc. can accept environmental samples for Ricin. For more information, please contact BTOX at 800.651.4802, ext. 1023 or email sales@btoxlabs.com.