



Ricin is the most poisonous substance known to man and a viable weapon for terrorists.

Ricin Not Just for Spy Novels Anymore

A Dangerous Toxicant

In planning an attack a terrorist would tend to look for an agent that is stable and easily produced. One of the most dangerous poisons known to man is ricin, a toxicant discovered in a Las Vegas motel room this past February. As with any potential threat the more you know the better prepared you'll be should you find yourself in a dangerous situation.

The Origins of Ricin

Ricin is a protein found in the beans of the castor plant. This is a large ornamental plant native to Africa and other warm regions. The beans, in and of themselves, are not particularly dangerous. Although chewing on one of the beans might kill a child or animal, it is more likely to produce stomach upset. More than a million tons of castor beans are processed on a daily basis. Manufacturers use these beans to create castor oil. Once the beans have had the oil removed there is a "mash" left behind. As much as 3 to 5% of this is ricin. Extracting the ricin takes minimal knowledge of science and can be done with little expense. The reality is clear: ricin makes an almost ideal chemical weapon for terrorists.

Once the ricin is extracted from this mash, it is made into one of three forms: aerosol, injectable fluid or powder. In powder or injectable form it takes very little to kill an adult. In fact, an amount the size of a head of a pin is enough. However, aerosol mist sprayed into a crowded area would take a very large amount. Given that it is so easily produced this is probably not a huge deterrent. So far, ricin has only been used in small amounts

Preparis provides businesses a new way to protect their people, operations and shareholder value from 21st century threats. Our web-based solutions deliver best-in-class preparedness information, communication tools and certification that safeguard a company's most important assets. We work in partnership with our clients to create a preparedness culture using leading edge technology to rapidly deploy critical information and programs directly to the employee level.

www.Preparis.com
404.364.1852

Copyright 2008

Preparis

X-Force Executive Brief

to create havoc. You may remember in 2004, Senate offices were closed when a white powder showed up in the mail room. Ricin was also sent through the mail room of the White House in November, 2003.

How the Poison Works

It generally takes one to three days for the poison to kill someone. Ricin works on small parts of the cell known as ribosomes, preventing them from producing proteins. Without the production of this protein the cells die off. How it affects the victim largely depends upon the method of delivery. If the poison is inhaled symptoms will appear within a few hours. These include coughing, tightness of the chest, difficulty breathing, nausea and aching muscles. As the poison moves through the body the airways become inflamed, excess fluid builds up and breathing becomes even more difficult. While the symptoms can be similar to the flu, the effects are much more deadly.

What if I've Been Exposed?

If you're in a crowded area and everyone begins to have flu-like symptoms you should seek immediate medical help. If you know an aerosol has been released, get out of the area as quickly as possible. Listen to authorities and follow their directions. There are certain procedures to follow in the event of exposure:

- Once you are out of danger make certain there is no ricin residue left on your body.
- Immediately remove all clothing and wash vigorously with soap and water.
- If you are wearing a pull over shirt or sweater, it must be cut off, not removed over the head.
- If you wear contacts, they must be disposed of with the clothing.
- Use tongs, a stick or other object to handle the clothing and seal it inside a plastic bag, sealed inside another plastic bag.
- Make certain public health authorities know where the clothing has been discarded.

If the poison is injected or ingested, such as by eating tainted food, the symptoms will show up as digestive problems. Unfortunately, just as there is no anecdote for the poison, there are no effective treatments or tests for ricin exposure. In fact, unless you know you've been poisoned with ricin, it's unlikely it will be discovered. Treatment is largely based upon making the victim as comfortable as possible. IV fluids are used to cope with dehydration, a breathing tube might be inserted and medications are given to combat seizures and low blood pressure. If the poison has been ingested, activated charcoal is used to clean out the stomach.

Preparis provides businesses a new way to protect their people, operations and shareholder value from 21st century threats. Our web-based solutions deliver best-in-class preparedness information, communication tools and certification that safeguard a company's most important assets. We work in partnership with our clients to create a preparedness culture using leading edge technology to rapidly deploy critical information and programs directly to the employee level.

www.Preparis.com
404.364.1852

Copyright 2008

Preparis

X-Force Executive Brief

Conclusion

Because Ricin is so easy to manufacture and use by terrorists, it will likely appear again in the future. As with Ricin and any unpredictable chemical threat, recognizing the warning signs and knowing how to respond before the incident occurs will protect the lives of your employees and your company's business continuity.

Preparis provides businesses a new way to protect their people, operations and shareholder value from 21st century threats. Our web-based solutions deliver best-in-class preparedness information, communication tools and certification that safeguard a company's most important assets. We work in partnership with our clients to create a preparedness culture using leading edge technology to rapidly deploy critical information and programs directly to the employee level.

www.Preparis.com
404.364.1852

Copyright 2008