

US EPA ARCHIVE DOCUMENT

# Endosulfan, beta

CAS Number: 33213-65-9

## What is endosulfan, beta?

Endosulfan, beta is one form of another substance called endosulfan. It looks like a brown-colored crystal and has an odor like turpentine. Since endosulfan, beta has the same chemical structure as endosulfan, much of the information included in this fact sheet is based on the information available for endosulfan.

## What is endosulfan, beta used for?

Endosulfan, beta is used as an insecticide on crops. Teas, grains, cotton, fruit, vegetables and tobacco are examples of crops that are treated with endosulfan, beta. It has also been used specifically in the United States as a wood preservative to protect wood from decay and insect attack. Endosulfan has not been produced in the United States since 1982, but it has been used to make other chemicals.

## How can endosulfan, beta enter and leave your body?

Endosulfan, beta can enter your body when you breathe contaminated air. It can be absorbed into your body when it comes into contact with your skin. Endosulfan can leave your body through urine just a few days after exposure.

## How can you be exposed to endosulfan, beta?

You can be exposed to endosulfan by breathing contaminated air or by eating or drinking contaminated food or water. Tobacco plants/crops that have been sprayed

with endosulfan could also be a source of exposure. It is possible that you can be exposed if you smoke cigarettes or breathe cigarette smoke. You can also be exposed to endosulfan, beta if you work in an industry that makes or uses it.

## What are the health effects of exposure to endosulfan, beta?

The central nervous system is the primary target affected by exposure to endosulfan. Breathing, eating or drinking high doses of endosulfan can cause convulsions (shaking violently) and death. You could also experience tremors, become hyperactive or see a decrease in breathing and your ability to produce saliva.

The effects of being exposed to low doses of endosulfan, beta over a long period of time are not known. However, animals exposed to low doses of endosulfan experienced a number of effects including reduced ability of the immune system to fight infection, problems with the liver and kidneys, problems with the testes in males, and the developing fetus in females.

The U.S. Environmental Protection Agency (EPA), the Department of Health and Human Services and the International Agency for Research on Cancer have not classified endosulfan as a cancer-causing substance.

## What levels of exposure can result in harmful health effects?

The EPA prohibits no more than 0.1 to 2.0 parts per million (ppm) of endosulfan to be present in food. The Food and Drug Administration recommend that no more than

24 ppm to be found in dry tea. The Occupational Safety and Health Administration has set a workplace exposure limit so that a worker will not be exposed to more than 0.1 milligrams of endosulfan per cubic meter for an 8 hour work day, and for a 40 hour work week.

### **Where can you get more information?**

Contact your state health or environmental department, or:

Agency for Toxic Substances and Disease Registry  
Division of Toxicology  
1600 Clifton Road, N.E., E-29  
Atlanta, Georgia 30333

### **References**

1. Agency for Toxic Substances and Disease Registry (ATSDR). *Toxicological Profile for Endosulfan*. Atlanta, GA: U.S. Public Health Service, U.S. Department of Health and Human Services, 1995.
2. Reigart, Routt J. and Roberts, James R. Medical University of South Carolina. *Recognition and Management of Pesticide Poisonings*. Fifth ed. Washington, D.C.: U.S. Environmental Protection Agency, Office of Pesticide Programs, 1999.