

US EPA ARCHIVE DOCUMENT

Trifluralin

CAS Number: 1582-09-8

What is trifluralin?

Trifluralin is a man-made chemical that looks like a yellowish-orange solid or crystal.

What is trifluralin used for?

Trifluralin is used primarily as a herbicide on grass, to control broadleaf weeds and on some crops (fruits and vegetables), flowers and shrubs. Cotton and soybeans are examples of some crops it is used on.

How can trifluralin enter and leave your body?

Trifluralin can enter and leave your body when you breathe contaminated air or absorbed by the skin if you come in contact with the substance. It can also enter your body if you eat trifluralin-contaminated food.

How can you be exposed to trifluralin?

You can be exposed to trifluralin if you breathe contaminated air or touch lawns or crops that have been treated with trifluralin. Exposure can occur if you eat fish that have been exposed to trifluralin contaminated water. Another source of exposure is through your work place. If you work in a business where trifluralin is being made, you could be exposed if trifluralin is released to the air while it is being produced. In addition, if you are responsible for applying the herbicide you can also be exposed. Farm workers who come in contact with treated crops are also at risk of exposure. Lastly, trifluralin could be released to water from

agricultural runoff.

What are the health effects of exposure to trifluralin?

There is very little information available on the short- and long-term effects on humans from exposure to trifluralin. However, animal studies show that trifluralin is moderately toxic to rats, mice and rabbits who were exposed to trifluralin for a short period. These animals were exposed to trifluralin by inhalation (breathing), ingestion (eating/drinking food or water) or skin contact.

Dogs exposed to trifluralin for long periods of time showed weight loss, changes in blood and an increase in their liver weight.

The offspring of mice that were fed trifluralin, showed abnormalities in the skeleton. The fetuses of pregnant mice and rats that were fed trifluralin experienced a decrease in their weight.

Rats who were fed trifluralin developed tumors in their urinary tract and in the thyroid. In addition, the U.S. Environmental Protection Agency (EPA) has determined that trifluralin could possibly cause cancer in humans.

What levels of exposure have resulted in harmful health effects?

EPA has indicated that exposure to 0.0075 milligrams per kilogram per day of trifluralin or less over a lifetime would not result in noncancer effects.

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. Reigart, Routh 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.
2. U.S. Environmental Protection Agency. *R.E.D. FACTS, Trifluralin*. Office of Prevention, Pesticides and Toxic Substances, 1996.
3. U.S. Environmental Protection Agency, *Health Effects Notebook, for Hazardous Air Pollutants, Trifluralin*. Office of Air Quality Planning & Standards, 1994.