



## EPTC

### What is EPTC?

EPTC is a commonly used herbicide that is a pale to dark yellow liquid. EPTC has a pleasant scent. Also known as EPTAM and S-Ethyl dipropylthiocarbamate, EPTC is used to kill weeds and unwanted plants.

### Where can EPTC be found and how is it used?

EPTC helps control annual grassy weeds, perennial weeds, and some broadleaf weeds. It is used in beans, forage legumes, potatoes, corn and sweet potatoes. In most cases, EPTC is applied before weed seeds begin to sprout or grow. It becomes part of the soil as soon as it is applied. EPTC has been found in both surface water and ground water and in water supply systems.

### How can people be exposed to EPTC?

*You could be exposed to EPTC through:*

**Breathing** EPTC when it is being mixed, handled or applied.

**Drinking** water that has been in contact with EPTC.

**Touching** EPTC when it is being mixed, handled or applied.

**Eye Contact** by EPTC drifting into the eyes when it is handled or applied.

### How does EPTC work and how can it affect my health?

EPTC poisoning can cause harmful, even deadly, effects to the body. Direct exposure can cause eye problems including restricted pupils, blurred vision, and severely irritated and reddened eyes. Swallowing EPTC causes stomach cramps, diarrhea and nausea. Breathing EPTC can lead to headache, dizziness and trouble breathing that can escalate to respiratory failure and death. Stomach and breathing problems usually start at the time of exposure. In children, the first symptom may be a convulsion, an intense, uncontrollable contraction of the muscles.

### How is EPTC poisoning treated?

A doctor will treat EPTC poisoning based on the symptoms, and may recommend a medicine called Atropine.

### What should I do if exposed to EPTC?

**If EPTC gets in your eyes**, hold your eyes open. Rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses after the first 5 minutes and continue rinsing the eyes. Seek medical attention.

**If EPTC gets on your skin**, take off clothing that has been in contact with the chemical. Rinse skin immediately with plenty of water for 15 to 20 minutes. Seek medical attention.

**If you swallow EPTC**, call a poison control center or get medical help right away. Sip a glass of water if you are able to swallow. Do not throw up, unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If you breathe EPTC**, move to fresh air. If breathing has stopped or is difficult, call 911 or an ambulance. Give artificial respiration, preferably mouth-to-mouth, if possible.



## What factors limit use or exposure to EPTC?

For most people, exposure can be limited by following all package directions when using EPTC products. Wear gloves and other protection to prevent skin exposure. To avoid exposure through drinking water containing EPTC, use bottled water or an alternate water source. If you work where EPTC is used, limit exposure by following health and safety rules.

## Is there a medical test to show whether I've been exposed to EPTC?

A blood test can measure the effect of exposure to herbicides including EPTC. The test measures a certain enzyme in the body. This enzyme can show signs of exposure, but the levels of this enzyme vary in each person. Therefore, the test is not always a reliable way to show exposure to EPTC.

## Technical information for EPTC

CAS Number: 759-94-4

Chemical Formula:  $C_9H_{19}NOS$

Carcinogenicity (EPA): EPTC has not undergone a complete evaluation and determination under U.S. EPA's IRIS program for evidence of human carcinogenic potential.

MCL (Drinking Water): There is no MCL for EPTC. Some states have guidelines for water ranging from 175 to 250 ug/L.

OSHA Standards: There are no OSHA standards for EPTC.

NIOSH Standards: There are no NIOSH standards for EPTC.

## References and Sources

American Conference of Governmental Industrial Hygienists (ACGIH). 2003. *Guide to Occupational Exposure Values*. Cincinnati, OH.

NIOSH Pocket Guide to Chemical Hazards. 2003. Atlanta, GA: U.S. Department of Health and Human Services.

U.S. EPA, IRIS Summary for EPTC, <http://www.epa.gov/iris/subst/0237.htm> (Accessed 10/29/09)