What is creosote?

Creosote is a mixture of chemicals used in a variety of products: coal tar creosote, wood creosote, coal tar, and coal tar pitch. It is produced by heating coal (coal tar creosote) or wood (wood creosote) to very high temperatures. In large quantities, creosote is highly toxic.

Where is creosote used?

Creosote is used in wood preservatives, pesticides, and herbal remedies. Coal tar creosote is the most widely used wood preservative in the United States. It is used in log homes, railroad ties, telephone poles, bridges, fence posts, etc. It is also used as a pesticide, insecticide, and fungicide, and in medicines to treat skin diseases such as psoriasis. Creosote is often found at hazardous waste sites.

How can creosote enter the environment?

Air:

- when creosote-treated wood is burned, creosote evaporates and pollutes the air.

Soil/groundwater:

- creosote may enter the soil and water, usually when used in the wood preservation industry,
- creosote may dissolve and move into the groundwater through the soil,
- less dense creosote chemicals stay near the top of water and can be ingested by animals, entering the human food chain.

How can creosote enter my system?

There are three ways in which creosote can enter your body:

- through the skin, when in contact with soil contaminated with creosote, or when using products that contain creosote for skin problems;
- through the lungs: breathing in creosote fumes;
- through the mouth: for example, by putting unwashed hands in the mouth after touching creosote-contaminated wood or soil, or by drinking contaminated water.

The amount that enters the system depends on the length of the exposure, the type of contact and how much creosote is present.
CREOSOTE

How can creosote affect my health?

Exposure to creosote may have minor to serious health effects, depending on how long you were exposed, how intense the exposure was, your age and your health history.

You may react to creosote in the following ways:

- If you touch creosote, your skin can turn red, swell, become irritated, and develop blisters and sores.
- If your eyes have been exposed to creosote, they can become irritated and develop sensitivity to light.
- Eating food or drinking water contaminated with creosote or breathing creosote vapors may cause a burning in the mouth and throat and stomach pain. Long-term exposure to creosote (for example taking herbal medicines containing creosote) can damage the kidneys, liver, and brain. Creosote-charged smoke can cause difficulty in breathing and asthma.
- Exposure to different types of creosote has caused cancer of the skin and of the scrotum.

Can a medical test show if I have been exposed to creosote?

No medical test can show if you have been exposed to creosote, but some chemicals contained in creosote can be found and measured in body tissues (organs, muscles), urine, or blood. Since these tests require special equipment, they are usually available only at special laboratories.

What can I do to reduce the risk of exposure to creosote?

- Wear protective clothing, such as gloves, and avoid prolonged exposure of skin and eyes.
- If you are exposed to creosote at work, shower before leaving for home, so that you do not carry creosote in your clothes, skin, hair, or tools.
- If you are exposed to creosote at work, do not wash your working clothes at home.
- Avoid prolonged exposure to creosote smoke.
- Do not use creosote inside your home or where animals are kept.
- Do not use creosote where it may come in contact with drinking water.
- Do not use creosote-treated wood in fireplaces, open fires or wood stoves.
- Avoid taking medicines containing creosote.

Are there any regulations / recommendations to protect people from creosote?

The Federal Occupational Safety and Health Administration (OSHA) has set a permissible exposure limit of 0.2 milligrams of coal tar creosote per cubic meter of air (0.2mg/m3) in the workplace during an 8-hour day. The Environmental Protection Agency (EPA) requires that spills or accidental releases into the environment of one (1) pound or more of creosote be reported to them.

For more information contact:

U.S. Environmental Protection Agency (EPA)
401 M St., SW, Washington, DC 20460
Right to Know Hotline (800) 535-0202
http://www.epa.gov

U.S. Department of Labor
Occupational Health and Safety Administration (OSHA)
200 Constitution Avenue, NW, Washington, DC 20210
www.osha.gov

Agency for Toxic Substances and Disease Registry (ATSDR)
Division of Toxicology
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