



TURPENTINE

What is turpentine?

Turpentine is a yellow-colored, sticky liquid that comes from pine gum or pine wood. Turpentine turns into a vapor very easily, and it can catch fire. Oil of turpentine is a colorless liquid with a very strong smell. Other names for turpentine are gum spirits, turps, gum thus, D.D. turpentine, wood turpentine, oil of turpentine, rectified turpentine oil, spirits of turpentine, sulfate wood turpentine, sulfate turpentine, gum turpentine, and steam-distilled turpentine.

Where can turpentine be found and how is it used?

In the past, turpentine was the most widely used paint and varnish thinner and was also used in printing, hair products, and medicines. Today, less costly products have replaced the use of turpentine in paints. Now, the major use of turpentine is as a raw material for the chemical industry. It is used for spray painting and pottery, ceramic coatings, artist's paints, and naval paints. Turpentine is used as a metal cleaner and sometimes found in shoe and furniture polishes. Compounds extracted from it are used for tires, plastics, adhesives, flavors, fragrances, makeup, paints, and medicine.

How can people be exposed to turpentine?

People who work in pulp or paper factories may be exposed to turpentine. Exposure at work can also occur at places that make flavorings, fragrances, coatings, metal cleaners, or solvents. At home, you can be exposed through food, personal care products, household products, and medicine. Pine forests are sources of natural, low-level exposure to turpentine since trees release terpenes into the air.

You could be exposed to turpentine through:

- **Breathing** vapors at work or at home, such as when painting.
- **Drinking** turpentine in medicine. Accidental drinking of turpentine is unlikely.
- **Touching** paint thinners or other products containing turpentine.
- **Eye contact** by splashing turpentine in the eyes.

How does turpentine work?

Turpentine is easily taken into the intestines and the lungs. Some turpentine leaves the body when air is breathed out. The rest leaves the body in urine. It irritates the stomach and intestines and affects the nervous system.

Poison Control Center 24/7 Emergency Contact Number: 1-800-222-1222
DPH 24/7 Contact Number: 1-888-295-5156



Frequently Asked Questions

How can turpentine affect my health?

Turpentine is poisonous if swallowed. Children and adults can die from drinking turpentine. Fortunately, turpentine causes taste and odor problems before reaching toxic levels in humans.

Turpentine is thought to be only mildly toxic when used according to manufacturers' recommendations. It can pass through the skin. Some people develop an allergy to turpentine when exposed to it for a long time.

Turpentine exposure causes eye irritation, headache, dizziness, and vomiting. Breathing or swallowing turpentine also causes kidney and bladder irritation.

How is turpentine poisoning treated?

There is no treatment for turpentine poisoning. A doctor will treat the symptoms. Medicine may be given if seizures occur. Pumping the stomach is only done if another poison has also been swallowed with the turpentine.

What should I do if exposed to turpentine?

- **If turpentine gets in your eyes**, flush the eyes right away. Use large amounts of water for at least 15 minutes. Lift the lower and upper lids from time to time. Get medical help.
- **If you touch turpentine**, wash with soap and water. If irritation does not stop, or if a large area of skin is affected, get medical help.
- **If you breathe turpentine**, go to an area of fresh air. Get medical help. If it is hard to breathe, try to get oxygen. Stay warm and quiet until help arrives.
- **If you swallow turpentine**, drink several glasses of water. Do not throw up. Get medical help right away. Stay warm and quiet until help arrives.

What factors limit use or exposure to turpentine?

When working with turpentine, have a source of fresh air and a ventilation system. If this cannot be done, workers should wear a respirator. Wear protective work clothing. Wash well after exposure. Wash again at the end of the work shift.

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

There is no medical test for turpentine poisoning.

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Technical information for turpentine

CAS Number: 8006-64-2

Chemical Formula: C₁₀H₁₆

Carcinogenicity (EPA): Turpentine has not been evaluated for carcinogenicity.

MCL (Drinking Water): There is no MCL for turpentine.

OSHA Standards: 560 milligrams per cubic meter of air (100 parts per million).

NIOSH Standards: 560 milligrams per cubic meter of air (100 parts per million). IDLH 800 ppm (imminent danger to life and health).

ACGIH: 20 ppm TWA

Resources

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

Filipsson AF. 1996. *Short term inhalation exposure to Turpentine: toxicokinetics and acute effects in men. Occup. Environ. Med.*,1996 Feb;53(2):100-5.

Irwin, R.J., M. VanMouwerik, L. Stevens, M.D. Seese, and W. Basham. 1997. *Environmental Contaminants Encyclopedia*. National Park Service, Water Resources Division, Fort Collins, Colorado.

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