



1,2,4-TRIMETHYLBENZENE

What is 1,2,4-trimethylbenzene?

1,2,4-trimethylbenzene is a colorless liquid chemical with a strong, pleasant scent. It is a major part of what the petroleum industry calls the 'C9 fraction.' Oil refineries produce large amounts of C9 fraction for use as a gasoline additive.

Where can 1,2,4-trimethylbenzene be found and how is it used?

In addition to being part of the compound used as a gasoline additive, 1,2,4-trimethylbenzene is also used as a solvent, as a paint and lacquer thinner, in making dyes, and in producing prescription drugs.

How can people be exposed to 1,2,4-trimethylbenzene?

Exposure to 1,2,4-trimethylbenzene occurs following releases to air, water, land, or groundwater. 1,2,4-trimethylbenzene may also be in sites polluted by leaking oil or gasoline storage tanks. People living near such sites may be exposed.

You could also be exposed to 1,2,4-trimethylbenzene through:

- **Breathing** it when filling a gasoline tank, if you are near a waste site containing 1,2,4-trimethylbenzene, or if you are using paints and cleaners that contain 1,2,4-trimethylbenzene.
- **Touching** it through improper handling of gasoline, paints, or cleaners.
- **Eye contact** by splashing 1,2,4-trimethylbenzene in the eyes. Exposure can also occur from drifting vapors.

How does 1,2,4-trimethylbenzene work and how can it affect my health?

Breathing high levels of 1,2,4-trimethylbenzene for short periods affects the nervous system, causing headaches, tiredness, sleepiness, or dizziness. 1,2,4-trimethylbenzene vapor irritates the nose, throat, and lungs, causing coughing, wheezing, and/or shortness of breath. Other symptoms of exposure are problems with muscle control, anxiety, and confusion. These effects would occur right away or shortly after exposure to 1,2,4-trimethylbenzene.

However, long-term effects can last for months or years and include anemia (reduced ability of the blood to carry oxygen), asthma symptoms, shortness of breath, cough, or chest tightness. Contact with liquid 1,2,4-trimethylbenzene over a long time irritates the skin. These effects are unlikely to occur at levels normally found in the environment.

How is 1,2,4-trimethylbenzene poisoning treated?

A physician can prescribe medicine to limit the amount of 1,2,4-trimethylbenzene that can be absorbed in the body. A doctor will treat the symptoms.

Poison Control Center 24/7 Emergency Contact Number: 1-800-222-1222

DPH 24/7 Contact Number: 1-888-295-5156

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Frequently Asked Questions

What should I do if exposed to 1,2,4-trimethylbenzene?

- **If you breathe 1,2,4-trimethylbenzene**, get fresh air. Stay warm and get medical help.
- **If you touch 1,2,4-trimethylbenzene**, remove clothes or footwear that contacted the chemical. Wash skin with large amounts of lukewarm water and soap. Use a mild cream to treat the skin after washing. Get medical help.
- **If you get 1,2,4-trimethylbenzene in your eyes**, flush eyes right away with clean, lukewarm water. Continue flushing for at least 15 minutes. Keep the eyelids widely apart while flushing. Get medical help.
- **If you swallow 1,2,4-trimethylbenzene**, do not vomit. Do not take eat or drink anything. Get medical help promptly.

What factors limit use or exposure to 1,2,4-trimethylbenzene?

At work, limit exposure by following health and safety rules. Wear breathing protection and protective clothing. When filling gas tanks, avoid breathing fumes. Avoid waste sites containing petroleum products.

Is there a medical test to show whether I've been exposed to 1,2,4-trimethylbenzene?

Tests can determine if 1,2,4-trimethylbenzene is in your body. Tests should be done as soon as possible after exposure since the chemical does not remain in the body for long.

Technical information for 1,2,4-trimethylbenzene

CAS Number: 95-63-6

Chemical Formula: C₉H₁₂

Carcinogenicity (EPA): EPA has not classified 1,2,4-trimethylbenzene as to its carcinogenicity.

MCL (Drinking Water): There is no MCL for 1,2,4-trimethylbenzene.

OSHA Standards: None

NIOSH Standards: The NIOSH exposure limit of 25 ppm (125 mg/m³) is a recommended time-weighted average (TWA) concentration for total 1,2,4-trimethylbenzene isomers for up to a 10-hour workday during a 40-hour work week.

Resources

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.

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