



XYLENES

What are xylenes?

Xylenes are clear, colorless liquid chemicals with a strong, sweet odor. Xylenes evaporate easily. There are three forms of xylene: m-xylene, o-xylene, and p-xylene.

Where are xylenes found and how are they used?

Xylenes are found naturally in the environment, as well as from human activities. Xylenes occur naturally in petroleum and coal tar and can be detected in air, water, and soil, yet they primarily enter the environment through human activities. Xylenes are added to gasoline with benzene and toluene to improve combustion and reduce “knocking” in engines. Xylenes are also used as solvents in making paints, varnish, shellac, and other chemical products.

How can people be exposed to xylenes?

You could be exposed to xylenes through:

- **Breathing** vapors at work where xylene is made or used, or if you make or apply paint, or varnish or process wood. Metalworkers, furniture refinishers, and gas station employees might breathe xylene vapors. If you live near a factory where xylene is made or used, you could be exposed. You can also breathe xylene in vapors from automobile exhaust or gasoline fumes. Tobacco smoke also contains xylenes.
- **Drinking** xylenes in water. Xylenes can enter water from spills or factory releases. This can occur from a leaking underground gasoline tank.

How do xylenes work and how can they affect my health?

Breathing xylenes for a short time affects the central nervous system, causing dizziness, sleepiness, irritability, or confusion. Other symptoms of exposure are headache, upset stomach, coordination problems, and irritated eyes, skin, nose, and throat. Breathing very high levels can cause unconsciousness and even death.

Breathing xylenes long-term, in repeated exposures, causes memory loss and impaired concentration. Drinking water containing high levels of xylene is believed to have the same effects as breathing xylenes.

How is xylene poisoning treated?

The body can rid itself of most short-term xylene exposures within 24 hours. Doctors can limit the effects of xylene exposure.

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

What should I do if I've been exposed to xylenes?

If you believe that you were exposed to xylenes, leave the source of exposure. Remove and discard contaminated clothing. Wash skin with soap and water. Rinse eyes with water if they contacted xylene. Seek medical assistance.

What factors limit use or exposure to xylenes?

Generally, people do not have an increased risk of exposure to high levels of xylene. Filling your gas tank and other daily activities are not likely to result in exposure to high levels. People working in the petroleum and other industries are at greater risk of exposure.

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

Doctors measure concentrations of breakdown products in the urine to estimate the severity of exposure.

Technical information for xylenes

CAS Number: 1330-20-7 (Individual isomers may have separate CAS Numbers)

Chemical Formula: C₈H₁₀

Carcinogenicity (EPA): Data are inadequate for an assessment of the carcinogenic potential of xylenes.

MCL (Drinking Water): 10 mg/L (total)

OSHA Standards: 100 ppm (435 mg/m³) 8-hour Time Weighted Average (TWA).

NIOSH Standards: 100 ppm (435 mg/m³) 8-hour Time Weighted Average (TWA).

Resources

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. *Toxicological Profile for Xylenes*. Atlanta, GA: U.S. Department of Health and Human Services. <https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=296&tid=53>

National Institute for Occupational Safety and Health. *NIOSH Pocket Guide to Chemical Hazards*. On-line version, www.cdc.gov/niosh/npg

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