



FORMALDEHYDE

What is formaldehyde?

Formaldehyde is a colorless, flammable gas with a distinct, pungent odor. It is also known as methanal, methylene oxide, oxymethylene, methylaldehyde, and oxomethane.

Formaldehyde is found in car exhaust, cigarette smoke, gas furnaces, and smoke from cooking appliances and open fireplaces. Our bodies also produce formaldehyde in small amounts by normal processes.

Where can formaldehyde be found and how is it used?

In the home, formaldehyde is found in food preservatives, cleaning products, cosmetic products, building materials, and household products such as carpet. Newly constructed structures can release formaldehyde into the interior air for a long time after construction.

Formaldehyde is used in industry to produce building materials and household products. It is also a by-product formed by burning and other natural processes. It can be present in smoke, some furniture and manufactured goods, gas stoves, and kerosene space heaters. Formaldehyde is used to keep clothing and draperies from wrinkling. It is also in some glues and adhesives and used as a preservative in some paints and coatings.

How can people be exposed to formaldehyde?

Most people are exposed to formaldehyde through vapors such as cigarette smoke and space heaters, and from fireplaces and gas furnaces that are not vented properly. House construction materials such as pressed wood products, hardwood, plywood paneling, and fiberboard can all emit formaldehyde. Furniture can also contain this chemical. Homes without enough ventilation can have higher levels of formaldehyde.

People who work with formaldehyde are at the highest risk of exposure. Exposure can be through direct contact or by working in areas where there is a moderate or high level of formaldehyde in the air.

How does formaldehyde work and how can it affect my health?

Breathing formaldehyde fumes causes watery eyes and burning in the eyes, nose, and throat. Other symptoms are skin irritation and rashes, nausea, coughing and chest tightness, an upset stomach, and trouble breathing. Breathing formaldehyde may cause an attack in people with asthma. Some people develop a sensitivity to it. Formaldehyde causes cancer in animals and is believed to cause cancer in humans.

How is formaldehyde poisoning treated?

There is no specific antidote or treatment for formaldehyde poisoning. Doctors can treat the symptoms and effects of exposure.

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

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

Revised: 03/2023

Page 1 of 2

What should I do if exposed to formaldehyde?

The general public is exposed to harmless, low levels of formaldehyde daily. Persons exposed to high levels of formaldehyde, or exhibiting symptoms of exposure, should be quickly removed from the source. Seek medical attention if necessary.

What factors limit use or exposure to formaldehyde?

In the home, reduce exposure by having enough ventilation, especially when installing or using gas-burning appliances. During building projects, choose lumber, insulation, and other products that contain small amounts of formaldehyde. In the workplace, limit exposure by using an exhaust vapor hood, breathing equipment, gloves, and goggles.

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

There is no specific test available for exposure to formaldehyde.

Technical information for formaldehyde

CAS Number: 50-00-0

Chemical Formula: CH₂O

Carcinogenicity (EPA): B1 – Probable human carcinogen.

MCL (Drinking Water): Not Established

OSHA Standards: 0.75 ppm 8 hr. Time Weighted Avg.; 2 ppm 15 minute Short Term Exposure Limit (STEL)

NIOSH Standards: 0.016 ppm 10 hr. Time Weighted Avg.

IDLH: 20 ppm

Resources

Agency for Toxic Substances and Disease Registry (ATSDR). 1999. *Toxicological profile for Formaldehyde*. Atlanta, GA: U.S. Department of Health and Human Services.

<https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=220&tid=39>

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.

New Jersey Department of Health and Senior Services, Right to Know Fact Sheets, Formaldehyde, <http://nj.gov/health/eoh/rtkweb/documents/fs/0946.pdf>

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

Revised: 03/2023

Page 2 of 2