



Formaldehyde Fact Sheet

What is formaldehyde?

Formaldehyde is a colorless, flammable, strong-smelling gas. Common names for formaldehyde include formalin, formic aldehyde, paraform, formol, formalin (methanol-free), FYDE, formalith, methanal, methyl aldehyde, methylene glycol, methylene oxide, tetraoxymethalene, oxomethane, and oxymethylene.

How are employees exposed to formaldehyde?

Employees can be exposed in both general industry and construction. Formaldehyde is an important industrial chemical used to manufacture building materials and to produce many household products. It is used in pressed wood products such as particleboard, plywood and fiberboard; glues and adhesives; permanent press fabrics; paper product coatings; and certain insulation materials. In addition, formaldehyde is commonly used as an industrial fungicide, germicide and disinfectant and as a preservative in mortuaries and medical laboratories. Formaldehyde can also be released by burning wood, kerosene, natural gas or cigarettes, through automobile emissions, or from natural processes.

How does formaldehyde exposure affect me?

Formaldehyde is classified as a human carcinogen and has been linked to nasal and lung cancer, with possible links to brain cancer and leukemia. Short-term exposure to high levels of formaldehyde can be fatal. Long-term exposure to low levels of formaldehyde may cause respiratory difficulty, eczema and sensitization.

When formaldehyde is present in the air at levels exceeding 0.1 ppm, some individuals may experience health effects such as watery eyes; burning sensations of the eyes, nose and throat; coughing; wheezing; nausea; and skin irritation. Some people are very sensitive to formaldehyde, while others have no reaction to the same level of exposure.

Employees should not rely on formaldehydes' warning properties to alert them to potential for exposure because employees adapt to formaldehyde and become less sensitive to odor and eye irritation.

Are there OSH standards for formaldehyde?

Yes, the following are standards the N.C. Department of Labor has adopted for formaldehyde:

- **29 CFR 1910.1048** – for general industry
- **29 CFR 1915.1048** – for shipyards
- **29 CFR 1926.1148** – for construction industry

The major elements of the formaldehyde standards are:

- An action level of 0.50 parts of formaldehyde per million parts of air, as averaged over an 8-hour period.
- A permissible exposure limit (PEL) of 0.75 parts of formaldehyde per million parts of air, as averaged over an 8-hour period.
- A short-term exposure limit (STEL) of 2 parts of formaldehyde per million parts of air, as averaged over a 15-minute period.
- Employers must use engineering controls and work practices, where feasible, to reduce worker exposure below the PEL.
- Employees must be provided with protective clothing and, where necessary, with respiratory protection accordance with 29 CFR 1910.134.
- Under certain circumstances, employees exposed to formaldehyde must be enrolled in a medical surveillance program.
- Employers must train employees about the standard and how formaldehyde affects the body.

Where can I find additional information?

Please review our [Formaldehyde Subject Index](#) page