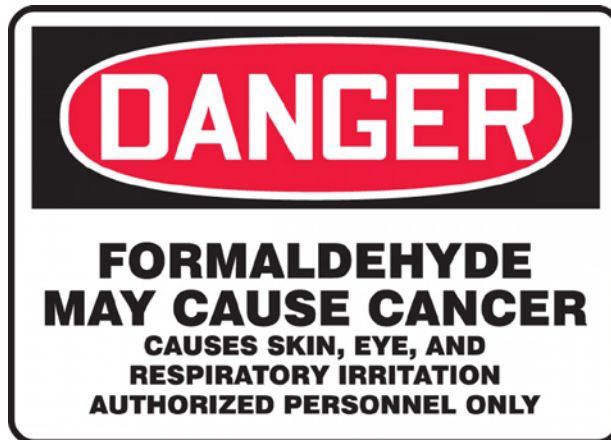


FORMALDEHYDE AT DUKE

Information for personnel



OSHA Standard Highlights

PERMISSIBLE EXPOSURE LIMIT

For an 8 hour workday, your exposure to formaldehyde must be under 0.75 parts formaldehyde per million parts air (0.75 ppm). For any 15 minute period, your exposure must be no more than 2 ppm.

EXPOSURE MONITORING

The Occupational Hygiene Program will monitor initially and periodically to determine airborne levels of formaldehyde. Employees will receive results in 15 days.

MEDICAL SURVEILLANCE

Duke provides medical surveillance for employees exposed over 0.5 ppm for eight hours or over 2 ppm for 15 minutes.

INFORMATION AND TRAINING

Employees exposed over 0.1 ppm must be trained initially and annually on this Standard, health hazards, safe work practices, and PPE.

METHODS OF COMPLIANCE

Duke will attempt to use ventilation and enclosures to control exposure. However, respiratory protection may be necessary.

HAZARD COMMUNICATION

Labels for formaldehyde containers must follow OSHA regulations, and Safety Data Sheets (SDS) must be available in your work area.

SHORT TERM EXPOSURE

Formaldehyde vapor can cause varying effects, depending on the air concentration:

Level, ppm	Effect
0.5 – 2	Possible eye, nose and throat irritation
3 – 5	Above plus tearing of eyes
10 – 20	Difficulty breathing, burning of nose and throat, coughing and heavy tearing of eyes
20	Immediately Dangerous to Life and Health (IDLH) - severe respiratory tract injury leading to pulmonary edema and pneumonitis

Skin contact with formaldehyde can cause discoloration, stinging, drying, cracking, and scaling. Prolonged contact can cause numbness and hardening of the skin. Skin contact with formaldehyde can also lead to sensitization and allergic reaction.

Eye contact can lead to temporary discomfort or more serious injuries such as corneal clouding or loss of vision.

Ingestion of formaldehyde can lead to severe irritation of the mouth, throat, and stomach. Unconsciousness or death can also result.

LONG TERM EXPOSURE

Formaldehyde is a carcinogen. Repeated exposure increases the risk.

Formaldehyde exposure has been associated with cancers of the nose, throat, and lungs.

There is no conclusive evidence that formaldehyde causes any adverse reproductive or developmental effects in humans.

SPILLS

SMALL SPILLS

Wear double disposable nitrile gloves and use an absorbent material to take up spilled liquid. Place this in a properly labeled container for disposal. Contact the OESO Chemical Waste Program (919-684-2794) about proper disposal procedures.

LARGE SPILLS

Follow Standard Operating Procedures.

Call 911 from a Duke phone to activate Duke's Spill Response Team.

Call 919-684-2444 from a cell phone to get Duke Police.

FIRST AID PROCEDURES

GET MEDICAL ATTENTION when formaldehyde is swallowed, gets in the eyes, causes chemical burns on the skin, or is inhaled in high concentrations.

INGESTION

Give the conscious person milk or water. Keep the person warm and at rest and get medical attention immediately. If the person vomits, lower the head below hips.

INHALATION

Remove the person to fresh air immediately if possible. If the concentration is very high (as in a large volume chemical spill), call 911 and get medical attention.

SKIN

Remove contaminated clothing and wash the affected area with soap and large amounts of water for at least 15 minutes. Get medical attention if you have chemical burns or eye or respiratory irritation.

EYES

Wash the eyes immediately with large amounts of water, occasionally lifting lower and upper lids, for at least 15 minutes. Get medical attention immediately.

Questions?

Call the Occupational and Environmental Safety Office (OESO) for information on the following topics:

- Recommendations for appropriate Personal Protective Equipment (PPE) for your job
- Air monitoring
- Health effects of formaldehyde
- The OSHA formaldehyde standard



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