



Title: **Formaldehyde Safety**

Number EH&S – 4-5

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Pages 4

**PURPOSE:** To establish safe handling practices and use of formaldehyde.

**SCOPE:** Hospital wide.

**DEFINITIONS:**

**Action Level** – As designated by OSHA, an exposure concentration of 0.5 parts formaldehyde per million parts of air (0.5 ppm) calculated as an 8 hour time weighted average (TWA).

**Permissible Exposure Level (PEL)** – As designated by OSHA, an exposure concentration of 0.75 ppm as an 8 hour time TWA.

**Short Term Exposure Level (STEL)** - As designated by OSHA, an exposure concentration of 2.0 ppm for any 15 minute period.

**PROCEDURES:**

**I. Training**

A. All employees exposed at or above 0.1 ppm who handle formaldehyde will be trained annually on the hazards of formaldehyde, as per OSHA. This training will be conducted by the Department of Environmental Health and Safety (EH&S). This training shall be in compliance with the requirements of the OSHA Formaldehyde standard and include:

1. A discussion of the contents of the OSHA regulation and the contents of the formaldehyde material safety data sheet.
2. The purpose for and a description of the medical surveillance program.
3. A description of the potential health hazards associated with exposure to formaldehyde and a description of the signs and symptoms of exposure to formaldehyde.
4. Instructions to immediately report to the supervisor the development of any adverse signs or symptoms that the employee suspects is attributable to formaldehyde exposure.
5. A description of operations in the work area where formaldehyde is present and an

explanation of the safe work practices appropriate for limiting exposure to formaldehyde in each job.

6. The purpose for, proper use of, and limitations of personal protective clothing and equipment.
7. Instructions for the handling of spills, emergencies, and clean-up procedures.
8. An explanation of the importance of engineering and work practice controls for employee protection and any necessary instruction in the use of these controls.
9. A review of emergency procedures including the specific assignments of each employee in the event of an emergency.

**II. Labeling Containers of Formaldehyde**

- A. All containers of formaldehyde, at a concentration greater than 0.1% formaldehyde, must be labeled. This label must include, at a minimum:

Formaldehyde  
CAUTION:  
Respiratory Sensitization  
Potential Cancer Hazard  
May Cause Eye Damage

- B. Containers must be kept closed at all times to reduce the formaldehyde vapors in the air.

**III. Monitoring**

- A. Initial monitoring will be performed in areas where there is the potential for employees to be exposed at or above the Action Level or at or above the STEL.
- B. This monitoring will be repeated each time there is a change in production, equipment, process, personnel or control measures which may result in new or additional exposure to formaldehyde.
- C. If the initial monitoring determines that the employee is exposed at or above the Action Level, monitoring will be repeated at least every 6 months.
- D. If the initial monitoring determines that the employee is exposed at or above the STEL, monitoring will be repeated at least once a year under worst conditions.
- E. Within 15 days of receiving the results, EH&S will notify the affected employees and supervisors of the results.

**IV. Regulated Areas**

- A. Areas where the airborne exposure concentration exceeds the PEL or the STEL, signs will be posted at all entrances with the following information:

**DANGER**  
Formaldehyde  
Irritant and Potential Cancer Hazard  
Authorized Personnel Only

B. Only persons who have been trained as described above, will be allowed access to these areas.

**V. Personal Protective Equipment**

- A. Review your Material Safety Data Sheet before using any product containing formaldehyde.
- B. Appropriate nitrile or neoprene gloves and protective eyewear must be worn or when immersion of the hands is anticipated.
- C. Protective eyewear with sideshields, or a faceshield with protective eyewear, must be worn when formaldehyde is being poured or when there is the potential for splashing.
- D. If monitoring shows that the PEL or STEL is exceeded, the employee will be required to wear a full face respirator with formaldehyde cartridges, until the exposure levels can be reduced with engineering controls. Prior to wearing a respirator, an employee must be medically cleared by Employee Health Services and be trained and fit tested by EH&S.
  - 1. When air purifying respirators are used, the cartridges must be replaced after three (3) hours of use, or at the end of the work shift, whichever is sooner, unless the cartridge contains a NIOSH approved end-of-service indicator to show when breakthrough occurs.
- E. There must be an emergency eyewash and shower in the immediate work area when there is the potential for splashing.

**VI. Spills**

**A. Minor Spills (less than a gallon)**

- 1. All areas using formaldehyde shall have a spill kit available for use in an emergency. Trained staff can clean up a 10% formalin minor spill using Spill-X-FP spill agent, as per instructions.
- 2. Appropriate nitrile or neoprene gloves and protective eyewear must be worn when cleaning up the spill.
- 3. Encircle spill at its perimeter by pouring SPILL-X-FP and then apply inward. Cover evenly and avoid splashing. Use half of the container of SPILL-X-FP for a one gallon spill.
- 4. Carefully mix SPILL-X-FP agent into the formaldehyde spill. Wait 15 minutes for polymerization to occur (may not solidify) and spill residue to cool.

5. Place all contaminated disposable material in a double bag, labeled as above. Contact EH&S for proper waste disposal.

**B. Major Spills (more than a gallon)**

1. If a major spill occurs, staff working at the spill site are not to clean it up.
2. Immediately evacuate the area, and close any doors. Alert others not to enter the area.
3. Contact University Police at 911 on campus (or 631-632-333 from cell phone) and request the Hazardous Materials Response Team. Provide University Police details of the spill including quantity, location, and affected persons.
4. Do not reenter the area until it has been cleared by EH&S.
5. **Off-site facilities:** Call the local fire department or 911.

**VII. Medical Surveillance**

1. Medical surveillance is available for all employees exposed to formaldehyde at or above the Action Level or exceeding the STEL (annually), who develop signs and symptoms of overexposure to formaldehyde, and for all employees exposed to formaldehyde in emergencies.
2. If an employee requires medical surveillance, they are to contact Employee Health Services. If the employee has developed signs and symptoms related to formaldehyde exposure, they should go to the Employee Health Services or the Emergency Department (off hours).
  - a. The examination shall include a medical and work history with emphasis on any evidence of upper or lower respiratory problems, allergic conditions, skin reaction or hypersensitivity, and any evidence of eye, nose, or throat irritation, and other elements considered appropriate by the examining physician.

**INQUIRIES/REQUESTS:** Environmental Health and Safety  
L1-059 HSC  
Zip 8017  
Main Office: 444-6783  
Fax: 444-6845

**RELATED FORMS:**

**RELATED DOCUMENTS:** 29 CFR 1910.1048 Formaldehyde  
Respiratory Protection Program, Policy 7-2