

The following is general information for those involved in the use of formaldehyde.  
Contact [occupational.health@cuanschutz.edu](mailto:occupational.health@cuanschutz.edu) if you have any questions.

## POTENTIAL RISKS



Formaldehyde is a colorless, highly toxic, strong-smelling flammable gas. It is commonly used and stored as a liquid to make it more stable. Formaldehyde gas is mixed with water and methanol to prevent polymerization, creating a solution called formalin.

### Health Effects

- Sensitizing agents can cause an immune response and allergic reactions
- Known carcinogen
- Irritant: eyes, nose, throat, respiratory tract

### Methods of Exposure

- Inhalation
- Skin absorption
- Eye contact
- Ingestion can be fatal

### Symptoms of Exposure

- Headache and watery eyes
- Cough and wheezing
- Skin rash and itching
- Asthma-like respiratory problems
  - Symptoms can be immediate or can be delayed up to 3 to 4 hours
  - Effects may worsen for up to 20 hours after exposure and can persist for several days

***Report any signs or symptoms of exposure at work to your supervisor and Occupational Health***

### Exposure Limits

- Monitored by Environmental Health and Safety through:
  - Personal monitoring devices
  - Lab surveying

## SAFE WORK PRACTICES



- Do not eat or drink where formaldehyde is used
- Keep chemical containers closed, except when dispensing
- Store formaldehyde in flammable cabinets
- Dispose of liquid hazardous waste or tissues in a timely manner
- Use face shields and eye protection
- Wear gloves when working in areas where formaldehyde is used
- Clean up/wipe down bench tops and other surfaces after using formaldehyde
- Remove contaminated clothing upon exiting formaldehyde areas
- Wash hands after leaving formaldehyde areas and before eating, drinking, etc.
- Post-shift showering may be recommended in areas of heavy formaldehyde use
- Complete required annual EHS formaldehyde training

### How to Protect Yourself

- Use general ventilation, local exhaust ventilation, and/or a fume hood if possible (depending on your work location)
- Do not block exhaust ducts
- Use downdraft tables in rooms where they are available; ensure that downdraft table is connected to exhaust ducts
- Keep cadavers covered when possible

### Personal Protective Equipment (PPE)

- Minimum lab attire required for all formaldehyde work
  - Safety glasses
  - Gloves
  - Lab coat
- Additional PPE required for personnel who perform tissue dumping:
  - Properly fitted respirator

## EXPOSURE SITUATIONS



- Splash to skin or eyes
  - Immediately drench area with water for 15-20 minutes; obtain follow-up medical assessment
- Spill or release:
  - Incidental spill (small spill): may be handled by trained staff, report to EHS
  - Emergency spill (larger spill): do not clean up on your own, poses a fire hazard, call EHS or University Police
- Ingestion
  - Call the Poison Control Center for immediate instructions
  - Seek emergency medical care (Emergency Room or 911)
- Report all exposures and signs/symptoms to your supervisor and Occupational Health
- File a claim with University Risk Management within 4 days

For more information, refer to the  
**Occupational Health website**

<https://research.cuanschutz.edu/ehs/home/divisions/occupational-health>



or contact **Occupational Health at**  
[occupational.health@cuanschutz.edu](mailto:occupational.health@cuanschutz.edu)

### Sources

[https://research.cuanschutz.edu/docs/librariesprovider174/policies/formaldehyde-policy.pdf?sfvrsn=139220b9\\_2](https://research.cuanschutz.edu/docs/librariesprovider174/policies/formaldehyde-policy.pdf?sfvrsn=139220b9_2)  
[https://www.canva.com/link?target=https%3A%2F%2Fresearch.cuanschutz.edu%2Fdocs%2Flibrariesprovider174%2Fguidance-and-manuals%2Fformaldehyde-safe-work-practices.pdf%3Fsfvrsn%3Db15720b9\\_2%29&design=DAFsYLy\\_BAc&accessRole=owner&linkSource=comment](https://www.canva.com/link?target=https%3A%2F%2Fresearch.cuanschutz.edu%2Fdocs%2Flibrariesprovider174%2Fguidance-and-manuals%2Fformaldehyde-safe-work-practices.pdf%3Fsfvrsn%3Db15720b9_2%29&design=DAFsYLy_BAc&accessRole=owner&linkSource=comment)  
<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1048>

## OCCUPATIONAL HEALTH SURVEILLANCE



*OSHA requires that individuals exposed to formaldehyde at concentrations at or exceeding the action level or STEL complete medical surveillance specific to formaldehyde exposure*

- Surveillance required for all personnel working with greater than or equal to 37% formaldehyde
- Also required for employees who develop signs and symptoms of overexposure and employees exposed to formaldehyde in emergency situations
- How To:
  - Submit Initial or Annual Medical Surveillance form, selecting formaldehyde under hazardous materials
  - Individuals will then receive the Initial or Annual Formaldehyde Medical Surveillance Form
    - Occupational Health will review the annual screening form for any concerns

## IMPORTANT CONTACTS



- Occupational Health
  - 303-724-9145
  - [Occupational.Health@cuanschutz.edu](mailto:Occupational.Health@cuanschutz.edu)
- Environmental Health and Safety
  - 303-724-0345 (main office)
  - 303-945-6136 (emergency mobile)
- University Risk Management
  - (303) 860-5682
  - <https://www.cu.edu/risk/file-claim>
- University Police
  - Anschutz: 303-724-4444
  - Denver: 303-556-5000
- Poison Control Center
  - 1-800-222-1222