**Job Hazard Analysis: Chemical Use**

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| **Formaldehyde**(Laboratory Grade)**Corrosive Warning Label Acute Toxicity Warning LabelHealth Hazard Warning Label** | **Personal Protective Equipment (PPE) Required:**Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fumes/gas/mist/vapors/spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing dust/fumes/gas/mist/vapors/spray. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. |

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| Hazards: Toxic if swallowed [Danger Acute toxicity, oral]. Toxic in contact with skin [Danger Acute toxicity, dermal]. Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]. May cause an allergic skin reaction [Warning Sensitization, Skin]. Causes serious eye damage [Danger Serious eye damage/eye irritation]. Fatal if inhaled [Danger Acute toxicity, inhalation]. Toxic if inhaled [Danger Acute toxicity, inhalation]. Suspected of causing genetic defects [Warning Germ cell mutagenicity]. May cause cancer [Danger Carcinogenicity]. Suspected of causing cancer [Warning Carcinogenicity]. (Review supplier Safety Data Sheet (SDS) for complete hazard information) |

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| **Job Steps** | **Hazards** | **Controls** |
| 1. Receiving and Storing Formaldehyde
 | * Exposure to vapors or spills
* Skin contact with liquid
* Improper storage leading to leaks or reactions
 | * Use appropriate PPE: gloves, goggles, and laboratory coat
* Store in a well-ventilated area, away from incompatible substances
* Ensure proper labeling and secure storage to prevent leaks
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| 1. Handling and Preparing Solutions
 | * Inhalation of fumes
* Skin and eye contact
* Spill or splash during mixing
 | * Use appropriate PPE: gloves, goggles, and laboratory coat
* Perform work in a fume hood or well-ventilated area
* Follow proper procedures for mixing and handling to avoid spills
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| **Job Steps** | **Hazards** | **Controls** |
| 1. Application and Use in Processes
 | * Prolonged exposure to vapors
* Accidental release or spill
* Contact with eyes, skin, or mucous membranes
 | * Use appropriate PPE: gloves, goggles, and laboratory coat
* Limit exposure time and ensure adequate ventilation
* Have spill kits and emergency showers/eyewash stations readily available
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| 1. Cleaning and Disposal
 | * Exposure during cleaning of equipment
* Improper disposal methods leading to environmental contamination
* Inhalation of fumes during disposal
 | * Use appropriate PPE: gloves, goggles, and laboratory coat
* Follow protocols for cleaning and decontaminating equipment
* Dispose of waste according to local regulations and ensure it is in properly labeled containers
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| **Description of****Activities** | **Control Measures** |
| Emergency Procedures | * Spill Response:
* Evacuate the area and alert others
* Use spill containment materials to control the spill
* Clean up using appropriate PPE and disposal methods
* First Aid:
* Inhalation: Move to fresh air immediately and seek medical attention if symptoms persist
* Skin Contact: Rinse skin thoroughly with water for at least 15 minutes; remove contaminated clothing
* Eye Contact: Rinse eyes with water for at least 15 minutes and seek medical attention
* Ingestion: Seek immediate medical attention; do not induce vomiting
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| Training | Employees should:* Be trained on formaldehyde hazards and safe handling procedures
* Be trained on the use of PPE and emergency response procedures
* Regularly review SDS for formaldehyde.
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| Review and Monitoring | * Conduct regular audits to ensure compliance with safety procedures
* Monitor air quality in areas where formaldehyde is used
* Review and update the job hazard analysis (JHA) periodically or when new hazards are identified
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**Resource:** National Library of Medicine – Pub Chem - [Formaldehyde](https://pubchem.ncbi.nlm.nih.gov/compound/formaldehyde#section=Safety-and-Hazards)

This resource is intended for informational purposes only and should not replace laboratory-specific procedures.
References to non-CDC resources do not constitute or imply endorsement by CDC or U.S. Department of Health and Human Services. This job aid is a component of the free, on-demand CDC training course “Fundamentals of Working Safely with Formaldehyde and Glutaraldehyde”. Find the course at <https://reach.cdc.gov/training>

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