


ARKANSAS STATE UNIVERSITY EHS
LABORATORY CHEMICAL STANDARD OPERATING PROCEDURE

Chemical Name: Chloroform **CAS #:** 67-66-3

Hazard Classification: Health Hazard

Location Used:	Principal Investigator:
Processes for Which Chemical Is Used:	

HAZARDS AND PROTECTION

<p>Hazard Information</p> <ul style="list-style-type: none"> • Carcinogen • Reproductive Toxicity • Liver and Kidney Toxicity 	
<p>Routes of Exposure</p> <ul style="list-style-type: none"> • Ingestion • Inhalation • Eye absorption • Skin Absorption 	<p>If exposed by:</p> <ul style="list-style-type: none"> • Inhalation: Remove to fresh air • Ingestion: Aspiration hazard if vomiting occurs. Do not induce vomiting. • Eye or skin: Rinse affected area for 15 minutes
<p>Symptoms of Exposure</p> <ul style="list-style-type: none"> • Cough, shortness of breath, dizziness, agitation, inebriation, nausea, vomiting • Headache, drying out of skin 	<p>If exposed by inhalation, ingestion or eye contact, seek medical attention. For other routes, seek medical attention if necessary.</p>
<p>Exposure Limits</p> <p>All exposure limits are Time Weighted Averages (average exposure over an eight-hour day) unless otherwise indicated.</p>	<p>OSHA PEL: 50 ppm (240 mg/m³) ceiling ACGIH TLV: 10 ppm (48 mg/m³) NIOSH REL: 2 ppm (9.5 mg/m³)</p>
<p>Engineering Controls</p> <ul style="list-style-type: none"> • Chemical Fume Hood 	<p>Never open chloroform outside of a chemical fume hood.</p>
<p>Administrative Controls</p> <ul style="list-style-type: none"> • Designated area sign • Particularly hazardous substance label 	<ul style="list-style-type: none"> • Post designated area sign before each use. • Label containers of chloroform as a health hazard. • Use as small a quantity as possible.

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<p>Personal Protective Equipment</p> <ul style="list-style-type: none"> • Gloves • Safety glasses or splash goggles • Lab coat 	<p>Two pairs of nitrile gloves for short-term use. If longer term use, polyvinyl alcohol (PVA) or laminate gloves are required. Change gloves immediately if a spill on gloves is observed. Wash hands after use.</p>
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OTHER SAFETY INFORMATION

<p>Transportation</p>	<p>Follow guidance given in the laboratory safety manual for transport of chemicals.</p>
<p>Storage</p> <ul style="list-style-type: none"> • Can be stored with flammable materials (except acetone). • Keep tightly sealed 	<p>Incompatible materials include:</p> <p>Acetone, strong bases, alkali metals, fluorine, dinitrogen tetroxide, potassium t-butoxide, powdered aluminum, nitrogen tetroxide, powdered magnesium, disilane, sodium methylate, triisopropylphosphine.</p>
<p>Spill/Accident Procedures</p> <p>For all spills:</p> <ul style="list-style-type: none"> • Wear two pairs of nitrile gloves • Evacuate the immediate area <p>Exposure:</p> <ul style="list-style-type: none"> • If anyone exposed requires emergency medical attention, dial 911 (or 9-911 from landline). • Follow procedures outlined in laboratory safety manual. 	<p>Small spills (less than 500 mL in a hood or 20 mL outside a fume hood): Cover the spill with absorbent materials. Place absorbent materials in bag or bucket for collection by EHS. Clean area with soap and water once spill is removed.</p> <p>Large spills (greater than 500 mL in a hood or 20 mL outside a fume hood): If the spill is in a chemical fume hood, contact the EHS director (864-710-2933). If he cannot be reached (does not answer phone, do not leave voicemail), then call 911, pull the fire alarm and exit the building. If the spill is outside of a hood, then call 911, pull the fire alarm and exit the building.</p>
<p>Waste Disposal</p>	<p>Waste chloroform must be collected for disposal.</p> <p>Empty bottles of chloroform may be rinsed and thrown in the dumpster.</p>

By signing below, you indicate that you have reviewed this SOP and understand the contents thereof:

Printed Name	Signature	Date

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