

## Properties and Effects of Common Fixatives

	<b>Formaldehyde (Volatile)</b>	<b>Glutaraldehyde (Volatile)</b>	<b>Osmium Tetroxide (Volatile)</b>	<b>Methanol/Ethanol (Volatile)</b>	<b>Picric Acid (Volatile)</b>	<b>Acrolein (100 % Volatile)</b>
<b>EFFECTS OF ACUTE EXPOSURE</b>						
<b>Dermal exposure</b>	Irritation	Discolor/burns	Burns	Irritant/Irritant	Discoloration/ destruction	Poison
<b>Eye contact</b>	Burns	Irreversible burns	Irreversible burns	Irritant/Irritant	Irritant, corneal damage	Severe irritation, corneal injury
<b>Inhalation</b>	Irritant nose, throat, lungs, CNS depression	Irritation to nose, throat, respiratory tract, dyspnea,	Chemical burns, possible death	Irritant/Irritant	Irritates upper respiratory tract, allergic reaction, red blood cell destruction	Poison
<b>Ingestion</b>	Internal burns, permanent blindness	Chemical burns, shock, coma	GI burns, Kidney damage	Poison-narcosis/Central nervous system depression	Headache, nausea, vomiting, poisoning	Poison
<b>OSHA-PEL</b>	0.75 ppm/avg 8 hrs in air	None	0.002mg/m <sup>3</sup> avg 8 hrs in air	200ppm/avg 8 hours in air// 1000ppm/8hrs	0.1mg/m <sup>3</sup> avg 8 hrs in air	0.1mg/m <sup>3</sup> avg 8 hrs in air
<b>Vapor Pressure</b>	93.6 mm Hg@38°C	17 mm Hg @ 20°C	7mmHg @ 20°C	100mmHg @21.2°C	<1mm Hg @ 20°C	200 mmHg@17.5° C
<b>EFFECTS OF CHRONIC EXPOSURE</b>						
<b>CNS</b>	Damage	Not Indicated	Corneal edema	Blindness/Retinal Destruction	Not Indicated	Not Indicated
<b>Respiratory</b>	Damage	Irritation	Inflammation	Poisoning	Not Indicated	Permanent Broncho- Pulmonary Damage
<b>GI</b>	Damage	Not Indicated	Not Indicated	Not Indicated/Probable	Not Indicated	Poison
<b>Hemato</b>	Damage	Not Indicated	Not Indicated	Not Indicated/Probable	Anemia	Not Indicated
<b>Reproductive</b>	Possible	Experimental animals	Possible	Not Indicated/Probable	Not Indicated	Experimental Teratogen
<b>Abortifacient</b>	Possible	Possible	Not Indicated	Not Indicated/Not Indicated	Not Indicated	Not Indicated
<b>Carcinogen</b>	Prob Human	Possible	Not Indicated	Not Indicated/Probable	Possible Human	Possible Human
<b>Mutagen</b>	Prob Human	Possible	Experimental animals	Not Indicated/Possible	Possible	Sister Chromatid Exchange
<b>Sensitizer</b>	Asthma, dermatitis, eczema	Dermatitis, Asthma	Dermatitis	Dermatitis	Dermatitis	Asthma
<b>Physical Hazards</b>	Flammable	Not Indicated	Not Indicated	Flammable/Flammable	Explosive when dry, flammable	Flammable,Reactive
<b>Gloves</b>	Nitrile, Polyethylene	Butyl Rubber, Neoprene	Not Indicated	Nitrile, Butyl Rubber	Neoprene,Nitrile	Butyl Rubber