

# SAFE OPERATION IN THE LABORATORY

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## CONTENT AT A GLANCE

Most traditional methods to generate a contrast between latent prints and the substrate require numerous chemicals, several of them hazardous to health. This safety poster sums up the most important precautions when utilizing chemicals to visualize fingerprints.

Chemical	Labels (GHS)	Hazard statements	Safety precautions
Ninhydrin		H302 Harmful if swallowed H315 Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> <li>Keep away from heat/ sparks/ open flames</li> </ul>
Cyanoacrylate		H227 Combustible liquid H314 Causes severe skin burns and eye damage H335 May cause respiratory irritation	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> <li>Avoid breathing Aerosol fume</li> </ul>
Iodine		H312 Harmful in contact with skin H332 Harmful if inhaled H315 Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation H372 Causes damage to organs when exposed H400 Very toxic to aquatic life	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> <li>Do not breathe fume, vapors</li> <li>Avoid release to the environment</li> </ul>
DFO		H225 Highly flammable liquid and vapour H301 Toxic if swallowed H311 Toxic in contact with skin H314 Causes severe skin burns and eye damage H332 Harmful if inhaled H336 May cause drowsiness or dizziness H370 Causes damage to organs	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> <li>Do not breathe fume, vapors</li> <li>Keep away from heat/ sparks/ open flames</li> </ul>
Crystal violet / Gentian violet		H302 Harmful if swallowed H318 Causes serious eye damage H351 Suspected of causing cancer H410 Very toxic to aquatic life with long lasting effects	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> <li>Avoid release to the environment</li> </ul>
Malachite green		H301 Toxic if swallowed H318 Causes serious eye damage H361d Suspected of damaging fertility or the unborn child H410 Very toxic to aquatic life with long lasting effects	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> <li>Never use during pregnancy</li> <li>Avoid release to the environment</li> </ul>
Phenol		H301 Toxic if swallowed H311 Toxic in contact with skin H314 Causes severe skin burns and eye damage H331 Toxic if inhaled H341 Suspected of causing genetic defects H373 May cause damage to organs through prolonged or repeated exposure	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> </ul>
Silver nitrate		H272 May intensify fire; oxidiser H314 Causes severe skin burns and eye damage H410 Very toxic to aquatic life with long lasting effects	<ul style="list-style-type: none"> <li>Wear eye protection</li> <li>Wear protective gloves</li> <li>Keep away from heat/ sparks/ open flames</li> <li>Avoid release to the environment</li> </ul>



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