



### PPE Selection Guide by Type

	Use the following PPE:	If your task/activity involves:	
<b>Hand Protection</b>	Disposable gloves	<ul style="list-style-type: none"> <li>solids of low or moderate toxicity</li> <li>BL1 microorganisms or viruses</li> <li>BL2 microorganisms, viruses, viral vectors, human materials or Old World primate materials</li> <li>unsealed radioactive materials or waste</li> <li>ultraviolet laser</li> <li>hand enters ultraviolet beam</li> </ul>	
	Appropriate chemical-resistant gloves (disposable or reusable)	<ul style="list-style-type: none"> <li>liquids with acute or chronic toxicity (pure chemicals, mixtures or solutions)</li> <li>pyrophoric (air-reactive) solids or liquids</li> <li>particularly hazardous substances including carcinogens, reproductive toxins, and reagents of high acute toxicity</li> </ul>	
	Nomex or equivalent fire-resistant gloves	<ul style="list-style-type: none"> <li>pyrophoric (air-reactive) solids or liquids</li> </ul>	
	Insulated cryogenic gloves	<ul style="list-style-type: none"> <li>cryogenic liquids</li> </ul>	
	Heat-resistant gloves	<ul style="list-style-type: none"> <li>handling hot surfaces &amp; objects such as autoclaved materials &amp; heated glassware</li> </ul>	
	Heavyweight gloves	<ul style="list-style-type: none"> <li>potentially-explosive compounds</li> </ul>	
<b>Eye and Face Protection</b>	Cut-resistant gloves	<ul style="list-style-type: none"> <li>cutting and connecting glass tubing</li> </ul>	
	Safety glasses or goggles	<ul style="list-style-type: none"> <li>liquids with acute or chronic toxicity (pure chemicals, mixtures or solutions)</li> <li>cryogenic liquids</li> <li>pyrophoric (air-reactive) solids or liquids</li> <li>particularly hazardous substances including carcinogens, reproductive toxins, and reagents of high acute toxicity</li> <li>procedures outside of the Biosafety Cabinet without splatter guard when splashes or sprays are anticipated</li> <li>glassware under pressure or vacuum</li> <li>cutting and connecting glass tubing</li> </ul>	
	Appropriate eye protection	<ul style="list-style-type: none"> <li>Class 3B or 4 laser</li> <li>laser(s) modified by optics</li> <li>open ultraviolet light source</li> <li>infrared-emitting equipment</li> </ul>	
	Safety glasses	<ul style="list-style-type: none"> <li>unsealed radioactive materials or waste, if there is a splash potential or if 10 milliCuries or more of 32P is used</li> </ul>	
	Safety goggles	<ul style="list-style-type: none"> <li>potentially-explosive compounds</li> </ul>	
	Face shield - required	<ul style="list-style-type: none"> <li>cryogenic liquids – if handling cryovials stored in liquid phase</li> <li>potentially-explosive compounds</li> <li>face enters ultraviolet beam</li> </ul>	
	- recommended	<ul style="list-style-type: none"> <li>pyrophoric (air-reactive) solids or liquids</li> <li>glassware under pressure or vacuum</li> </ul>	
<b>Body Protection</b>	Clothing covering to knees	<ul style="list-style-type: none"> <li>minimal amounts of liquids (less than 0.1 liters) with acute or chronic toxicity</li> </ul>	
	Lab coat - required	<ul style="list-style-type: none"> <li>more than minimal amounts of liquids with acute or chronic toxicity (pure chemicals, mixtures or solutions)</li> <li>particularly hazardous substances including carcinogens, reproductive toxins, and reagents of high acute toxicity</li> <li>BL2 microorganisms, viruses, viral vectors, human materials or Old World primate materials</li> <li>procedures outside of the Biosafety Cabinet without splatter guard when splashes or sprays are anticipated</li> <li>unsealed radioactive materials or waste</li> <li>ultraviolet laser</li> <li>body enters ultraviolet beam</li> <li>infrared-emitting equipment</li> <li>handling hot surfaces &amp; objects such as autoclaved materials &amp; heated glassware</li> <li>glassware under pressure or vacuum</li> </ul>	
		- recommended	<ul style="list-style-type: none"> <li>cryogenic liquids</li> </ul>
	Nomex or equivalent fire-resistant lab coat - required	<ul style="list-style-type: none"> <li>potentially-explosive compounds</li> <li>pyrophoric (air-reactive) solids or liquids</li> </ul>	
	- recommended	<ul style="list-style-type: none"> <li>if more than 4 liters of flammable liquids used</li> </ul>	
	Ear plugs or ear muffs as needed	<ul style="list-style-type: none"> <li>sonicator or other loud equipment</li> </ul>	
	Respirators as needed	<ul style="list-style-type: none"> <li>particularly hazardous substances including carcinogens, reproductive toxins, and reagents of high acute toxicity (if volatile and not in chemical fume hood)</li> </ul>	

Closed-toed shoes that cover the entire foot should be worn when working in a laboratory.

More guidance available [online](#).