

## A Question of Taste (PCR): Risk Assessment

Activity	Hazard	Precaution	Risk
PTC strip tasting	<ul style="list-style-type: none"> <li>PTC (Phenylthio-carbamide): Toxic</li> </ul>	<ul style="list-style-type: none"> <li>Students not permitted to taste more than one strip per workshop. This is well below the limit recommended by CLEAPSS</li> <li>Demonstrators to model tasting technique using control strips to prevent repeated exposure</li> </ul>	Very Low
	<ul style="list-style-type: none"> <li>Ingestion of other hazardous chemicals</li> </ul>	<ul style="list-style-type: none"> <li>Students to wash and dry their hands before tasting strips</li> </ul>	Low
Cheek cell collection in saline mouthwash	<ul style="list-style-type: none"> <li>Student's cheek cells and/or saliva: Biohazard</li> </ul>	<ul style="list-style-type: none"> <li>Students only handle their own samples</li> <li>All samples disposed of appropriately after use</li> <li>Any spills immediately disinfected</li> </ul>	Low
Micropipetting, restriction enzyme digest and gel loading	<ul style="list-style-type: none"> <li>Waste tips</li> </ul>	<ul style="list-style-type: none"> <li>All tips disposed of in waste pots</li> <li>Demonstrator to empty pots at end of session</li> </ul>	Very low
	<ul style="list-style-type: none"> <li>Virkon disinfectant for waste tips: Irritant</li> </ul>	<ul style="list-style-type: none"> <li>Use diluted</li> <li>Pre-dispensed into waste pots, placed on centre of benches</li> <li>Students warned not to move waste pots or touch disinfectant</li> </ul>	Low
	<ul style="list-style-type: none"> <li>TBE Running Buffer: Irritant</li> </ul>	<ul style="list-style-type: none"> <li>Used at low concentration</li> <li>Spills wiped up immediately</li> <li>Students to wash hands if spilled</li> </ul>	Very low
Agarose gels	<ul style="list-style-type: none"> <li>Burns from molten agarose when pouring gels</li> </ul>	<ul style="list-style-type: none"> <li>Students shown how to pour agarose safely</li> <li>Students to use rubber hand protectors to hold hot flask</li> <li>Activity closely supervised</li> </ul>	Low
	<ul style="list-style-type: none"> <li>SYBR-Safe® DNA stain in agarose gel: Potentially harmful</li> </ul>	<ul style="list-style-type: none"> <li>Technician to prepare agarose and handle concentrated stain solution</li> <li>Students to wear gloves when removing combs and tape from gels</li> <li>Students to avoid touching gels</li> <li>Gels and gloves disposed of in chemical waste</li> </ul>	Very low

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Gel electrophoresis	<ul style="list-style-type: none"> <li>• Electrical hazard from gel tanks and power packs</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrator to check lids on gel tanks and leads plugged in correctly before turning on power and starting power packs</li> <li>• Demonstrator to switch off and unplug power packs at end of gel run</li> </ul>	Very low
Visualisation of DNA	<ul style="list-style-type: none"> <li>• Blue light transilluminator: Risk of eye damage in individuals with macular degeneration</li> </ul>	<ul style="list-style-type: none"> <li>• All participants to wear orange safety glasses provided when viewing gels</li> </ul>	Very low