

Risk Assessment for School Science Activities

Name and nature of activity	Demonstrating the flame test using a PET bottle	
Location and date of activity		
Name of teacher/technician	Science ASSIST example risk assessment	
Activity type	<input checked="" type="checkbox"/> Technician procedure <input checked="" type="checkbox"/> Teacher demonstration <input checked="" type="checkbox"/> Student activity – Student year group	
Physics and general equipment	Type of hazard	Controls and other measures
Bunsen burner Spray bottle PET bottle	<input type="checkbox"/> Radiation ionising laser <input type="checkbox"/> Electrical <input checked="" type="checkbox"/> Thermal <input type="checkbox"/> Projectiles <input type="checkbox"/> Sharps <input type="checkbox"/> Other –	<input type="checkbox"/> Relevant signage <input type="checkbox"/> Perspex safety shield <input type="checkbox"/> Sharps container <input type="checkbox"/> Glassware free from cracks or chips <input type="checkbox"/> Safety glasses <input type="checkbox"/> Thermally insulated gloves <input checked="" type="checkbox"/> Other – Ensure bottle held steady, warn when Bunsen burner is alight.
Chemicals used and produced	Type of hazard	Controls and other measures
1M Sodium chloride (GHS07) 1M Calcium chloride (GHS07) 1M Potassium chloride 1M Barium chloride (GHS06) 1M Lithium chloride GHS07 08) 1M Strontium chloride (GHS05 07) 1M Copper chloride (GHS05 07 09)	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Explosive <input type="checkbox"/> Flammable <input type="checkbox"/> Oxidising <input type="checkbox"/> Gases under pressure <input checked="" type="checkbox"/> Corrosive </div> <div style="width: 45%;"> <input checked="" type="checkbox"/> Acute toxicity <input checked="" type="checkbox"/> Health hazards <input checked="" type="checkbox"/> Chronic health hazards <input checked="" type="checkbox"/> Environmental <input type="checkbox"/> Other – </div> </div>	<input checked="" type="checkbox"/> Limit quantity/concentration <input type="checkbox"/> Perspex safety shield <input type="checkbox"/> Ventilation: natural/exhaust <input type="checkbox"/> Fume cupboard <input checked="" type="checkbox"/> Safety glasses <input type="checkbox"/> Laboratory coat/apron <input type="checkbox"/> Gloves: latex/nitrile/neoprene/PVC <input type="checkbox"/> Safety shower <input checked="" type="checkbox"/> Other – Collect spray in bottle and recycle.
Biological/geological materials used	Type of hazard	Controls and other measures
NA	<input type="checkbox"/> Biohazard <input type="checkbox"/> Dust/aerosols <input type="checkbox"/> Sharps <input type="checkbox"/> Manual handling <input type="checkbox"/> Other –	<input type="checkbox"/> Steriliser <input type="checkbox"/> Disinfectant <input type="checkbox"/> Sharps container <input type="checkbox"/> Dust mask <input type="checkbox"/> Safety glasses <input type="checkbox"/> Gloves <input type="checkbox"/> Other –
Waste produced	Waste disposal procedure	
Sodium chloride, Calcium chloride, Potassium chloride, Barium chloride Lithium chloride, Strontium chloride, Copper chloride	<input type="checkbox"/> Pre-treatment of waste – <input checked="" type="checkbox"/> Sink with water – rinse final trace amounts from PET bottles <input checked="" type="checkbox"/> Regular waste – <input type="checkbox"/> Licenced hazardous waste company – <input checked="" type="checkbox"/> Other – Recycle majority of chemical collected in PET bottle	
Standard Operating Procedures		
<input checked="" type="checkbox"/> I have read the relevant Standard Operating Procedure. <input checked="" type="checkbox"/> I am experienced/trained in using all the equipment listed. <input checked="" type="checkbox"/> All chemicals used and produced are approved for use. <input checked="" type="checkbox"/> I have read the current SDSs for all hazardous chemicals used and produced. <input checked="" type="checkbox"/> I am aware of safety guidelines for using all chemicals, materials and equipment. <input checked="" type="checkbox"/> I will follow local guidelines for waste disposal (water authority, local council, EPA). <input checked="" type="checkbox"/> I am aware of first aid procedures if required.		
Other comments: Use gloves during the clean-up		
Conclusion:		
<input type="checkbox"/> Risks not significant now and not likely to increase. <input checked="" type="checkbox"/> Risks significant but effectively controlled at the moment. <input type="checkbox"/> Risks significant and not adequately controlled at the moment. <input type="checkbox"/> Uncertain about risks; more detailed assessment required.		
Assessment carried out by: Science ASSIST	Signature:	Date: July 2016
Assessment approved by:	Signature:	Date:
Next assessment due:		
This Risk Assessment assumes that the activity will be conducted in a science teaching area with the following facilities: electricity, running water, emergency shut-offs for electricity, gas if applicable, and water, regular testing and tagging of portable appliances; emergency contingencies such as evacuation/emergency plans, appropriate fire extinguishers, spill kits, hand washing facilities, eyewash/safety shower and first aid supplies. It is also assumed that all the necessary licencing requirements and approvals are obtained prior to the activity.		