

Risk Assessment for School Science Activities

Name and nature of activity	Gas cylinders in school science areas	
Location and date of activity		
Name of teacher/technician	Science ASSIST example risk assessment	
Activity type	<input checked="" type="checkbox"/> Technician procedure <input type="checkbox"/> Teacher demonstration <input type="checkbox"/> Student activity – Student year group	
Physics and general equipment	Type of hazard	Controls and other measures
Gas cylinder Compatible regulator Cylinder valve key Cylinder trolley for transport	<input type="checkbox"/> Radiation ionising laser <input type="checkbox"/> Electrical <input type="checkbox"/> Thermal <input type="checkbox"/> Projectiles <input type="checkbox"/> Sharps <input checked="" type="checkbox"/> Other – Manual handling and storage	<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 – See comments below
Chemicals used and produced	Type of hazard	Controls and other measures
Gas cylinder contents should be listed here:	<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 checked="" type="checkbox"/> Gases under pressure <input type="checkbox"/> Corrosive </div> <div style="width: 45%;"> <input type="checkbox"/> Acute toxicity <input checked="" type="checkbox"/> Health hazards <input type="checkbox"/> Chronic health hazards <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Other – possible oxygen depletion hazards </div> </div>	<input type="checkbox"/> Limit quantity/concentration <input type="checkbox"/> Perspex safety shield <input checked="" 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 – Consider the contents of the cylinder to apply relevant controls.
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	
Empty cylinder.	<input type="checkbox"/> Pre-treatment of waste – <input type="checkbox"/> Sink with water – <input type="checkbox"/> Regular waste – <input type="checkbox"/> Licenced hazardous waste company – <input checked="" type="checkbox"/> Other – Label cylinder as empty, store away from full cylinders and return to supplier.	
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: Ensure secure restraint of gas cylinders in an upright position and proper storage, transport and use of gas cylinders to prevent personal injury as well as the remote possibility of cylinder falling over, breaking the valve stem and becoming a projectile		
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: March 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.		