

Science - No.48 Chemicals (List additional hazards, risks and controls particular to your school using the blank template no.69)

Hazards	Is the hazard present? Y/N	What is the risk?	Risk rating H = High M = Medium L = Low	Controls (When all controls are in place risk will be reduced).	Is this control in place?	Action/to do list/outstanding controls *Risk rating applies to outstanding controls outlined in this column	Person responsible	Signature and date completed
Unauthorised access to laboratory		Uncontrolled exposure to hazardous properties of laboratory chemicals	H	Unauthorised access to the laboratory is controlled e.g. locked when not in use				
Limited or poor information on hazardous chemicals in use		Inadvertent exposure to teachers/pupils environment due to unknown hazardous properties of laboratory chemicals Inadvertent/incorrect use of incorrect chemicals	M	Up-to-date chemical inventory readily available				
			M	Safety Data Sheets (SDS) readily available for all hazardous chemicals				
			M	All hazardous chemicals labelled correctly - labels understood, intact and legible?				
			M	New Classification and labelling regime (CLP) understood by teachers and pupils				
			M	Information on hazard label corresponds to information on Safety Data Sheets (SDS)				
Limited or poor information on labels		Inadvertent use of incorrect chemicals	H	Containers with non-hazardous substances e.g. water clearly labelled to avoid confusion				
Use of hazardous chemicals		Exposure to toxic or very hazardous substances	H	Elimination/substitution considered e.g. toxic/carcinogenic substances				
Poor storage arrangements for laboratory chemicals		Uncontrolled access and exposure to hazardous properties of laboratory chemicals	H	Chemicals are stored in separate and well ventilated room - access controlled				
Incorrect storage of chemicals		Chemical reaction or exposure to chemicals	H	Chemicals are not stored on benches or within fume cabinets				

Science - No.48 Chemicals cont'd. (List additional hazards, risks and controls particular to your school using the blank template no.69)

Hazards	Is the hazard present? Y/N	What is the risk?	Risk rating H = High M = Medium L = Low	Controls (When all controls are in place risk will be reduced).	Is this control in place?	Action/to do list/outstanding controls *Risk rating applies to outstanding controls outlined in this column	Person responsible	Signature and date completed
Chemical spills or reactions of chemicals in storage		Chemicals being inadvertently knocked off shelves Chemical with specific storage requirements not being adhered to resulting in an incident	H	Established conventions used, e.g. incompatible chemicals are segregated and stored in compatible hazard classes; Chemicals stored below eye level; Secondary containment is provided for liquid chemicals and anti-roll lips on shelves etc.				
Fire		Fire	H	Fire, smoke and heat detectors fitted in store rooms - appropriate fire extinguishers available				
Risk of fire		Fire	H	Quantities kept to a minimum especially flammable liquids				
Out of date chemicals in use		Chemicals being used outside manufacturers specifications	M	Inspection undertaken at regular intervals, for the purposes of disposal of out-of-date chemicals				
Broken glassware		Lacerations/ burns/ chemical exposure	H	All glassware and storage vessels examined for star cracks				
Inappropriate disposal or storage		Lacerations/ needle stick injuries and environmental damage	H	Specific storage containers provided for chemical waste [] Recyclable solvents [] Sharps [] (Tick where appropriate)				
Contact with chemicals		Exposure to chemicals	H	Cleaner made aware of hazard warning symbol on chemicals and care required when cleaning the laboratory and/or science area				
Inadequate administrative controls		Uncontrolled exposure to hazardous properties of laboratory chemicals to pupils and cleaning staff	H	General laboratory rules are understood and followed by pupils				

Science - No.48 Chemicals cont'd. (List additional hazards, risks and controls particular to your school using the blank template no.69)

Hazards	Is the hazard present? Y/N	What is the risk?	Risk rating H = High M = Medium L = Low	Controls (When all controls are in place risk will be reduced).	Is this control in place?	Action/to do list/outstanding controls *Risk rating applies to outstanding controls outlined in this column	Person responsible	Signature and date completed
Lack of knowledge of risks in relation to laboratory experiments		Personal injury to persons working in the laboratory	H	Particular risks identified for an experiment to be communicated to pupils				
		Incorrect use of chemicals leading to chemical exposure	H	Relevant sections of Safety Data Sheets (SDS) conveyed to pupils				
Cluttered bench tops and dirty laboratory environment		Contact with chemicals	H	Bench tops clean, organized and environs maintained to eliminate harmful exposures or unsafe conditions				
Incorrect disposal of chemicals		Cuts/ abrasions and environmental contamination	H	Correct disposal procedures in place for chemical waste and glass waste				
Poor personal protective equipment (PPE) controls		Contamination by chemicals	H	Appropriate personal protective equipment (PPE) available e.g. face shields, goggles, lab coats and appropriate hand protection				
Lack of PPE		Contamination by chemicals	H	Appropriate personal protective equipment (PPE) available, e.g. face shield, goggles, lab coats, appropriate hand protection etc.				
Inadequate maintenance of fume cupboard		Exposure to chemicals/fumes	H	Fume cupboard fit for purpose and use supervised				
			H	Fume cupboard inspected regularly, tested and maintained with test label affixed - records stored appropriately and easily retrievable				
			H	Regular checks are made to ensure the average face velocity on these units is adequate (0.5 m/s or higher)				
Poor engineering controls		Uncontrolled exposure to hazardous properties of laboratory chemicals	H	SDS consulted for correct engineering controls				

Science - No.48 Chemicals cont'd. (List additional hazards, risks and controls particular to your school using the blank template no.69)

Hazards	Is the hazard present? Y/N	What is the risk?	Risk rating H = High M = Medium L = Low	Controls (When all controls are in place risk will be reduced).	Is this control in place?	Action/to do list/outstanding controls *Risk rating applies to outstanding controls outlined in this column	Person responsible	Signature and date completed
Poor hygiene controls		Inadvertent exposure of teachers/students to hazardous properties of laboratory chemicals	H	General laboratory rules are understood and followed by pupils e.g no eating, drinking or taste anything in the laboratory or any food brought into the laboratory				
Chemical ingestion		Chemical ingestion resulting in illness or chemical poisoning	H	Safety bulbs must be used when pipetting to avoid inadvertent ingestion				
Ingestion / absorption of chemicals		Illness or chemical poisoning	H	Adequate handwash facilities and eye wash station available, unobstructed and maintained				
Lack of other essential safety items in laboratory		Reduced ability to manage emergencies incidents/ spillages	H	Safety items to be available in the laboratory, e.g. <ul style="list-style-type: none"> • Safety screen • Fire extinguishers (CO2/Dry powder) • Fire blankets • Fire buckets with sand • Chemical spill clean up kit - absorbing agent • First aid kit • Warning notices • Contact notice for emergency services, National Poisons Centre etc. 				

If there is one or more **High Risk (H)** actions needed, then the risk of injury could be high and immediate action should be taken. **Medium Risk (M)** actions should be dealt with as soon as possible. **Low Risk (L)** actions should be dealt with as soon as practicable.

Risk Assessment carried out by: _____

Date: / /