



UNIVERSITY OF
LEICESTER

DEPARTMENT OF
MOLECULAR AND CELL
BIOLOGY

Lab Practice Booklet 2018 - 19

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Introduction

This booklet contains essential health and safety information for working in the laboratories of the Department of Molecular and Cell Biology.

Please read it carefully. You should also refer to the Departmental Safety Handbook, a copy of which can be found on the departmental website here (log-in required):

<https://www2.le.ac.uk/departments/molcellbiol/information-staff>

Key messages

- Follow the guidelines in this booklet unless instructed otherwise.
- **Don't** use equipment unless you've been shown how to.
- Follow the procedures given to you.
- If you are in any doubt about any procedure, or don't know what to do - **ask!**
- If something goes wrong - **tell someone as soon as possible!**

Fire Safety

This section covers aspects of fire safety that are specific to working in laboratories. Please see the Departmental Safety Handbook, or the fire notices, for details of fire evacuation procedures.

Considerations when evacuating the buildings

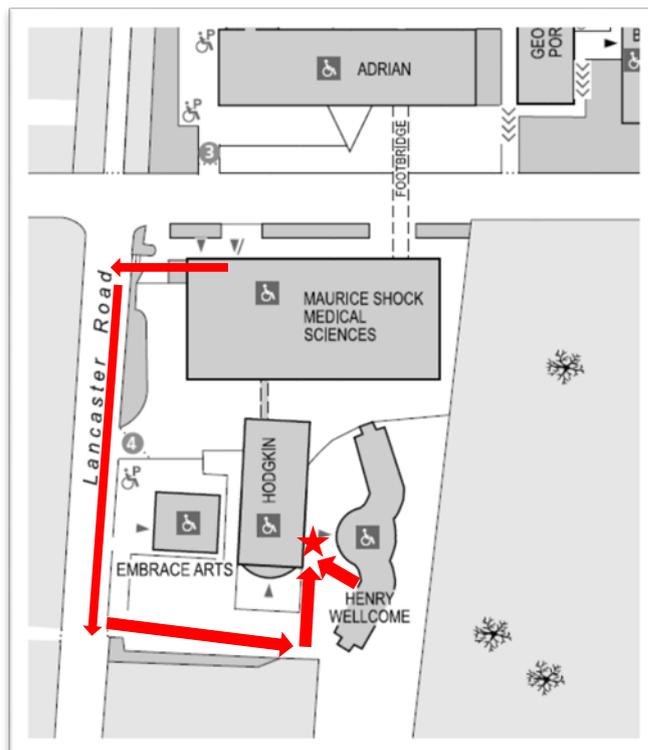
- If the fire alarm sounds, switch off Bunsen burners and extinguish any naked flames before exiting the building.
- As a priority, ensure that all experiments which would be particularly hazardous if suddenly abandoned are risk assessed with respect to fire evacuation.

Fire safety precautions

- Do not leave Bunsen burners and other naked flames unattended and certainly do not leave the laboratory whilst they are alight.
- Inspect Bunsen hoses for signs of damage and ensure hoses fit well onto gas taps.
- Always turn off gas fully after use and remember that the Bunsen will need to cool before being handled.
- Bunsen burners cannot be used in fume hoods, or Class II safety cabinets, because they affect the air flow, can damage the cabinet filters and can ignite sources of IMS. The use of naked flames in safety cabinets must be approved by the Departmental Safety Officer.
- Any experiment which needs to be left unattended, e.g. overnight must be properly risk-assessed. See the Departmental Safety Handbook for more details.

Fire assembly point for the Henry Wellcome Building and Medical Sciences Building

The assembly point is in the paved area between the Henry Wellcome Building and the Hodgkin Building (star symbol in the diagram below)



Safety Equipment

Lab coats

When working in the laboratories lab coats must be worn and fastened. You must use one that is provided by the department and these must be left in the laboratory at the end of each day. Lab coats (which are in use) should always be stored inside the lab areas for hygiene reasons.

Safety Glasses

Safety glasses must be worn where there is any risk to the eyes (yours, or anyone else's in the lab) e.g. from chemical splashes. The COSHH Risk Assessment Form must state if these need to be worn.

Gloves

Gloves must be worn if indicated by the COSHH Risk Assessment. Always use nitrile gloves (orange, blue or purple coloured) if possible, as these have better chemical resistance. Latex gloves (cream coloured) are thinner and can cause allergic reactions in sensitive individuals. For more information about glove selection please see the Departmental Safety Handbook.

If you are instructed by your supervisor to use an item of personal protective equipment (PPE), then you must do so

If a risk assessment for a procedure requires the use of an item of safety equipment then the Department will provide this. The following equipment is available within the department:

PPE:	For use with:
Lab coats/aprons	Any lab bench work
Safety spectacles	Most bench work
Gloves	Most bench work
Face visors	Liquid nitrogen
UV visors	UV lightboxes
Ear protection	Sonicators
Dust masks	Allergy protection/weighing out of dusty solids
Thermal gloves	Liquid nitrogen and other cryogenic storage

In addition to personal protection there are also Fume cabinets (hoods) for the use of volatile or 'offensive' chemicals. These must be used if stated on the Risk Assessment Form.

Lab Rules

- **Footwear** - high heeled shoes or sandals must not be worn in the lab. Footwear must be sturdy and cover the feet.
- **Hair and jewellery** - long hair must always be tied back. Jewellery that dangles must be removed and placed in a safe place before beginning work.
- **Bags and outdoor coats** - must not be taken into the laboratory areas.
- **Mobile phones and other electronic devices** - phones and similar items must not be used in the laboratories, but can remain in your pocket if they are switched off.
- **Food, drink and the application of cosmetics** – are not allowed inside the laboratories.
- **Hands and hygiene** - it is essential to wash hands every time you leave the laboratory. You must ensure that you cover any broken skin with a plaster, or barrier cream, as appropriate.
- **Office areas** - laboratory equipment and chemicals must NEVER be taken into office areas. You must remove your lab coat and wash your hands before entering office areas.
- **Security** – do not allow anyone to follow you through swipe access doors unless they have a valid ID card.

Chemical Safety and COSHH

Chemical safety is governed by the Control of Substances Hazardous to Health (COSHH) regulations.

Chemical hazard information is available:

- on the outside of chemical containers
- in Material Safety Data Sheets (MSDS), which are usually available from the website where the chemical was bought

The hazard information does not take account of how the substance will be used. Factors such as **frequency of use** and the **quantity** of chemical to be used will affect the risk posed by the substance in each instance.

All of these factors are considered and recorded on a COSHH Risk Assessment Form.

A COSHH Assessment Form should accurately record the level of hazard posed by a chemical, calculate the risk in using it, and explain the **procedures and precautions** that must be undertaken to ensure it is used safely.

Use of COSHH Assessment forms

- Each lab/group has a COSHH folder. There must be a COSHH Assessment Form for every hazardous substance in use in the lab.
- When you use a chemical for the first time you must read the COSHH Assessment, so that you are aware of the hazards posed by the chemical and the actions that are required to ensure safe use.
- If the information in the COSHH form is not sufficient for this then you should consult the Material Safety Data Sheet (MSDS) and amend the COSHH Assessment as required.
- All members of staff and post-graduate students should complete the COSHH Assessments relating to their work, in order to ensure that they are fully aware of the hazards, risks, and emergency procedures.
- Undergraduate students and other inexperienced workers e.g. work experience students, must read all relevant COSHH Assessments relating to their work, but are not expected to fill out COSHH Assessments themselves.

- All completed assessments must be signed by either the Academic supervisor/Group leader or an appropriate member of technical staff (the Departmental Technician assigned to the laboratory).

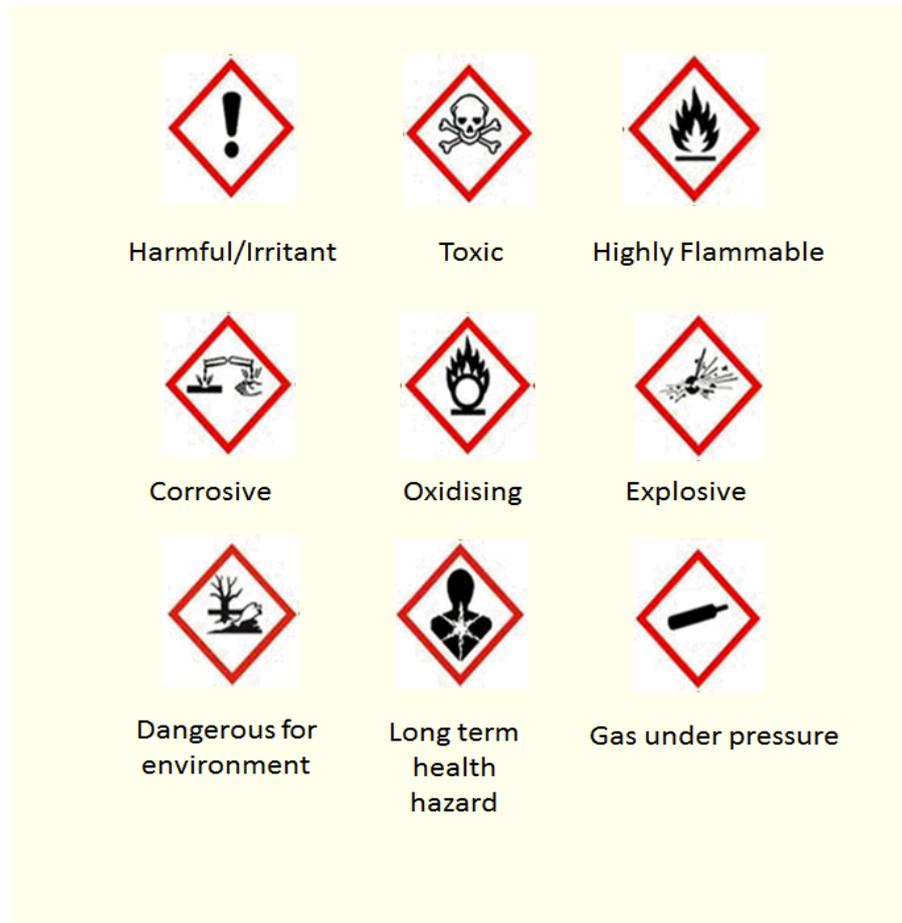
Further advice and guidance on COSHH Assessments may be sought from any member of the Departmental Technical team or the Departmental Safety Officer (DSO)

Example of completed COSHH Assessment Form

Sections of particular importance have been indicated in this case with dotted lines. You should pay particular attention to these areas on each COSHH form.

 University of Leicester	COSHH Assessment	Safety Office Use Ref no..... Date Received.....																												
		<hr/>																												
1. DEPARTMENT Call Physiology and Pharmacology..... Person completing this form Neil Johnston..... Position Research Technician.....																														
2. HAZARDOUS SUBSTANCE (or group of substances) <u>METHANOL</u> Class of Hazard Harmful <input checked="" type="checkbox"/> Toxic <input checked="" type="checkbox"/> Very Toxic <input type="checkbox"/> Irritant <input type="checkbox"/> Corrosive <input type="checkbox"/> Carcinogen <input type="checkbox"/> Highly Flammable <input checked="" type="checkbox"/> Explosive <input type="checkbox"/> Other hazards <u>TOXIC IN CONTACT WITH SKIN</u> Teratogen <input type="checkbox"/> Health effects <u>CAN CAUSE DAMAGE TO ORGANS</u> Mutagen <input type="checkbox"/> HAZARD CATEGORY Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input checked="" type="checkbox"/> Exceptional <input type="checkbox"/> Is there a risk of an explosive atmosphere developing? <u>YES/NO</u> . If 'yes' are DSEAR control measures in place? <u>YES/NO</u> Is the substance on the Anti-terrorism, Crime and Security Act 2001 pathogen/toxin list? <u>YES/NO</u> Are there workplace exposure limits for this substance? <u>YES/NO</u> . If 'yes' please state limits.....																														
3. USE OF HAZARDOUS SUBSTANCE Nature of use: <u>PART OF WESTERN BLOTTING BUFFERS</u> Where used: <u>LAB 419</u> By whom used: <u>STAFF AND STUDENTS</u>																														
4. EXPOSURE POTENTIAL <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 15%;">LOW</th> <th style="width: 15%;">MEDIUM</th> <th style="width: 15%;">HIGH</th> </tr> </thead> <tbody> <tr> <td>Quantity used</td> <td><10mg <input type="checkbox"/></td> <td>10mg - 1g <input type="checkbox"/></td> <td>1g - 100g <input type="checkbox"/></td> </tr> <tr> <td>Physical characteristics affecting exposure</td> <td>Dense solid <input type="checkbox"/></td> <td>Dusty solid <input type="checkbox"/></td> <td>Gas/Aerosol <input type="checkbox"/></td> </tr> <tr> <td></td> <td>Non-volatile Liquid <input type="checkbox"/></td> <td>Volatile Liquid <input type="checkbox"/></td> <td>Highly volatile liquid <input checked="" type="checkbox"/></td> </tr> <tr> <td>Primary containment (excluding fume cupboard, etc)</td> <td>Closed system <input type="checkbox"/></td> <td>Partially closed system <input type="checkbox"/></td> <td>Open system <input checked="" type="checkbox"/></td> </tr> <tr> <td>Frequency of use</td> <td>Occasional <input checked="" type="checkbox"/></td> <td>Frequent <input type="checkbox"/></td> <td>Continuous <input type="checkbox"/></td> </tr> <tr> <td>OVERALL EXPOSURE POTENTIAL</td> <td>Negligible <input type="checkbox"/></td> <td>Low <input type="checkbox"/></td> <td>Medium <input checked="" type="checkbox"/></td> </tr> </tbody> </table>				LOW	MEDIUM	HIGH	Quantity used	<10mg <input type="checkbox"/>	10mg - 1g <input type="checkbox"/>	1g - 100g <input type="checkbox"/>	Physical characteristics affecting exposure	Dense solid <input type="checkbox"/>	Dusty solid <input type="checkbox"/>	Gas/Aerosol <input type="checkbox"/>		Non-volatile Liquid <input type="checkbox"/>	Volatile Liquid <input type="checkbox"/>	Highly volatile liquid <input checked="" type="checkbox"/>	Primary containment (excluding fume cupboard, etc)	Closed system <input type="checkbox"/>	Partially closed system <input type="checkbox"/>	Open system <input checked="" type="checkbox"/>	Frequency of use	Occasional <input checked="" type="checkbox"/>	Frequent <input type="checkbox"/>	Continuous <input type="checkbox"/>	OVERALL EXPOSURE POTENTIAL	Negligible <input type="checkbox"/>	Low <input type="checkbox"/>	Medium <input checked="" type="checkbox"/>
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OVERALL EXPOSURE POTENTIAL	Negligible <input type="checkbox"/>	Low <input type="checkbox"/>	Medium <input checked="" type="checkbox"/>																											
5. RISK ASSESSMENT Route(s) of contact: Skin <input checked="" type="checkbox"/> Eyes <input type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Ingestion <input type="checkbox"/> Other <input type="checkbox"/> State..... Assessment of risk to health: Negligible <input type="checkbox"/> Low <input type="checkbox"/> Medium <input checked="" type="checkbox"/> High <input type="checkbox"/>																														
6. PRECAUTIONS NECESSARY IN HANDLING AND USE Hand protection <input checked="" type="checkbox"/> variety: <u>NITRILE GLOVES</u> Respiratory protection <input type="checkbox"/> variety: <u>FUME HOOD</u> Eye and Face protection <input type="checkbox"/> variety:..... Specialist clothing <input checked="" type="checkbox"/> variety: <u>LAB COAT</u> Other <input checked="" type="checkbox"/> state: <u>KEEP AWAY FROM SOURCES OF IGNITION</u> Use with protocol <input type="checkbox"/> Copy attached <input type="checkbox"/> Special storage precautions: <u>PURE STOCK SOLUTION KEPT IN FLAMMABLES CABINET</u> Disposal: <u>BUFFER SOLUTIONS DOWN SINK WITH 7X EXCESS OF WATER</u>																														
7. EMERGENCY PROCEDURES In case of spillage: <u>FOR SMALL SPILLAGES AVOID BREATHING IN VAPOURS. SWITCH OFF NAKED FLAMES. FOR VERY LARGE SPILLAGES AS ABOVE PLUS OPEN WINDOWS. EXIT LAB AND CONTACT SAFETY SERVICES</u> Other special emergency procedures..... First Aid Standard <input checked="" type="checkbox"/> Non-standard <input type="checkbox"/> State:.....																														
8. INFORMATION, INSTRUCTION AND TRAINING Source of information: MSDS <input checked="" type="checkbox"/> Other <input type="checkbox"/> Training required: General laboratory training <input checked="" type="checkbox"/> Other <input type="checkbox"/>																														
9. FINAL ASSESSMENT Risk to health is: Unlikely <input type="checkbox"/> Significant but adequately controlled <input checked="" type="checkbox"/> Significant, and controls needed <input type="checkbox"/> Unknown. Actions needed <input type="checkbox"/>																														
10. ACTIONS TO IMPLEMENT THIS ASSESSMENT Are any of the following required? Monitoring of exposure <input type="checkbox"/> Health surveillance <input type="checkbox"/> Workplace air monitoring <input type="checkbox"/> Is a copy to be sent to the Safety Office? <u>YES/NO</u> . If yes, date sent:..... Review Date of this assessment:.....																														
11. DECLARATION. The above is to the best of my knowledge an accurate statement of hazards and foreseeable risks. The procedures and precautions described will adequately control exposure to substances hazardous to health.																														

Hazard Symbols found on chemical containers



Other Hazards

Flammable solvents	Liquid Nitrogen
<p>Hazards: Vapour easily ignited by naked flames or sparks. If stored incorrectly, can be extremely dangerous in the event of a fire.</p> <p>Precautions: Keep well away from naked flames, e.g. Bunsen burners. Volumes of over 500ml must be kept in flame-tamer cabinet when not in use. The cabinet door should always be kept closed. Acids and other oxidising substances cannot be put in these cabinets as they are chemically incompatible. Store the minimum amount that you need. Avoid keeping multiple bottles of the same chemical.</p>	<p>Hazards: Temperature is -196°C, therefore can cause serious cold burns, especially to eyes. If not treated with proper care the individual 1.5mL cell storage vials can explode. Spillage of liquid nitrogen in an enclosed space can cause asphyxiation.</p> <p>Precautions: You must undergo specific training before using liquid nitrogen. Use of face visor and thermal gloves is essential. Doors to liquid nitrogen storage areas must be kept open. Never take any quantity of liquid nitrogen into a lift (elevator), or other confined space. For more information about liquid nitrogen handling and dispensing please see the Departmental Safety Handbook.</p>

Sharps	Lab Microwaves
<p>Hazards: Can cause cuts or puncture wounds which could lead to infection. Injury may result in contamination by lab organisms or chemicals.</p> <p>Precautions: Never re-sheath needles. Dispose of all sharps immediately after use. Always dispose of sharps into a yellow Sharpak bin. Never dispose of sharps by any other route.</p>	<p>Hazards: Heated substances can explode if not handled carefully. Excessive heating, particularly of small volumes can create dangerous superheated liquids.</p> <p>Precautions: Read the safety instructions on front of the microwave carefully. Always ensure that bottle tops are loosened before placing in the microwave.</p>

UV light boxes	Centrifuges
<p>Hazards: Causes burns to skin and can cause permanent eye damage.</p> <p>Precautions: Ensure use of UV-protective face visor. Cover all exposed skin, especially wrists. Avoid exposing other members of staff to leaking rays.</p>	<p>Hazards: Because of the intense forces generated by a centrifuge rotor any failure of the rotor can cause serious damage and could cause serious injury.</p> <p>Precautions: Proper training must be undertaken before use. Sample tubes need to be very carefully balanced to avoid rotor spindle damage.</p>

Gas cylinders	Slips, trips and falls
<p>Hazards: Gas cylinders can weigh up to 100kg and could cause a serious injury if they fell onto someone. They also contain gases under high pressure.</p> <p>Precautions: Do not try and move a gas cylinder under any circumstances. Gas cylinders should only be moved by trained individuals. Do not use any gas equipment if there is any suspicion of damage, e.g. a missing regulator control, or damaged tubing.</p>	<p>Hazards: Slipping or falling over is the most common accident across the University and in some cases can cause serious injuries.</p> <p>Precautions: Wear sensible footwear in the laboratory. Clean up spillages immediately. Alert your supervisor if there is a chemical spill. Keep your work area tidy! No running!</p>

Other Training

Cell Culture

Before commencing work in a cell culture area you must receive training and follow the Department Tissue Culture Code of Practice. Please note that if you are working on the 4th floor of the HWB, this will be in the form of a Tissue Culture Facility Induction conducted by Lory Francescut (Senior Technician in charge of the 4th floor TC facility).

Radioactivity

If you are planning any work with radioactivity then you must first receive training organised by the Departmental Radiation Protection Officer (DRPO) Dr Olga Makarova.

Even if you are not working with radioactivity, you must still be aware of any areas in which radioactivity is being used.

You must not place any clean objects, such as lab books, on benches designated for radioactive work. You must not touch or move any equipment that is labelled with radioactive tape or stickers.

Manual Handling

Always carry reagents and cultures sensibly.

Use a trolley, tray, bottle carrier, or for carrying bottles very short distances cradle the bottle with both hands.

Moving hazardous chemicals, cultures, or equipment from lab to lab and across buildings

Laboratory gloves cannot be worn in non-laboratory areas, so in some circumstances moving equipment, reagents, and cultures safely between labs and across buildings can be difficult.

Ethidium Bromide gels – whilst in the laboratory place gel in a plastic box with lid. Clean outside of box of any residual contaminants. Carry the box with un-gloved hands. When you reach your destination wash your hands then re-apply gloves and lab coat.

Bacterial cultures – these should always be carried in a secure fashion on a trolley. The trolley and operator should be clean of contaminants. Gloves and lab coat should not be worn during transit.

Remember that no laboratory items can be carried through or into office areas including the office corridors in the Henry Wellcome Building

Health Issues

It is very important to report any health issues which could be impacted by your work to your supervisor, or to the Departmental Safety Officer.

For example, you should notify your supervisor as soon as possible if you have any of the following conditions:

- Respiratory illness, e.g. asthma, allergy
- Skin complaints, e.g. eczema, psoriasis
- Pregnancy
- Low blood pressure with episodes of fainting

All matters will be treated in the strictest confidence

Accidents and spills

If you have an accident:

- Stay calm.
- Get help from an experienced member of staff or a first aider – lists of first aiders are displayed throughout the department (HWB and MSB).
- First aid kits are available in every lab.
- Chemical spill kits can be used for problematic spills (see page 19).
- ALL accidents or dangerous occurrences must be reported to the Departmental Safety Officer as soon as possible.

Laboratory First Aid

First aid should be carried out by a qualified first aider. However, for some accidents there are some useful things that can be done immediately whilst waiting for someone to arrive.

Injury	Action
Splashes to eye	<ul style="list-style-type: none">• Remove contact lenses if present• Rinse eye with water or eyewash, if available• 15 minute rinse (direct away from good eye)• Call a first aider
Bleeding	<ul style="list-style-type: none">• If possible raise the injured part of the body• Apply pressure with a sterile dressing• Call first aider
Burns (of any type)	<ul style="list-style-type: none">• Remove any contaminated clothing (if chemical)• Running cold water• 15 minutes rinse• Call a first aider
Poisoning	<ul style="list-style-type: none">• If ingested do not induce vomiting• If absorbed remove contaminated clothing and rinse skin for several minutes• Call a first aider <p>Remember to show the COSHH form and MSDS to medical professionals</p>

Genetically Modified Organisms (GMOs)

Guidance on the use of GMOs is available under several documents on the Safety Services website. In brief some important points should be noted:

- Any use of genetically modified organisms must be approved by the Genetic Modification Sub-committee. Approval can take a significant amount of time and so it is usual for applications to be made in the planning stage of a project.
- No work involving GMOs can take place without Sub-Committee approval.
- You must abide by any agreements in the approved application, particularly with regard to waste disposal and safety precautions.
- Any variation in the application must be re-approved by the committee.

Hazardous Biological Agents (HBAs)

Hazardous Biological Agents (HBAs) are defined as:

any micro-organism, cell culture, or human endoparasite, including any which have been genetically modified, which may cause any infection, allergy, toxicity or otherwise create a hazard to human health.

This department is limited to Hazard Category 2. You are therefore not permitted to use any HBA suspected of being in hazard category 3 or above.

Hazard groups 1 and 2 are described below:

Hazard Group	Definition
1	A biological agent unlikely to cause human disease.
2	A biological agent that can cause human disease and may be a hazard to employees; it is unlikely to spread to the community and there is usually effective prophylaxis or effective treatment available.

See the Safety Services document 'Hazardous Biological Agents' for examples and further information.

Use of any HBA requires the completion of an application form 'Hazard Group 1-2 Biological Agents' (from Safety Services website) unless the organism is already covered by a GMO application. Each organism must be evaluated to ascertain which category it is within.

Working with Biomedical Tissues

Any person wishing to work with biomedical materials **must** first register with the Preclinical Research Facility (PRF) and notify the DSO. Staff in the PRF will arrange an induction which will include a health survey. Normally, all workers will undergo a health examination before beginning this type of work.

Waste Disposal

General Lab Waste disposal

Item to be Disposed of	Method of Disposal	Other Information
Autoclavable laboratory waste (NO SHARPS)	Autoclave bags	When 2/3rds full, seal with tape, label with lab number and place in receptacle on service corridor
Batteries	Disposal box	Disposal box in HWB foyer (ground floor)
Cardboard boxes	Collected by porters	HWB – leave in service corridor; MSB - leave next to lifts
Chemical waste and containers	Contact Jon Tillotson-Roberts for advice	See separate chemical waste disposal guide
Clinical waste (non-infectious)	Yellow bags/bins	Bagged clinical waste placed in dedicated freezer in room HWB 440. Bins to be disposed of via MSB clinical waste store.
Computer waste/electrical/old equipment	Contact Jon Tillotson-Roberts for advice	Email Jon (jar20) with serial numbers and description of items to be disposed of
General waste	Black topped bin (lined with bag plastic sack) for land fill waste	Wherever possible recycle waste in appropriate bins e.g. clean paper, plastic, metal cans, packaging etc.
Glass waste (clean)	Glass bins	Wash out bottles before disposal; When full, seal bin with tape and request porters to collect
Metal waste (large)	Contact Jon Tillotson-Roberts	Metal waste skip
Office/lab furniture	Contact Jon Tillotson-Roberts	Furniture will be recycled or collected by porters for disposal
Radioactive waste	Contact Jon Tillotson-Roberts	Refer to separate documentation, or contact Dr Olga Makarova (DRPO)
Sharps	Yellow 'cin bin' (labelled 'Sharps')	Bins to be disposed of via MSB clinical waste store.
Tissue culture waste	Refer to Tissue Culture Code of Practice or local TC rules	Media and plastic ware must be decontaminated (autoclaved or chemically-treated) before disposal
Toner Cartridges	Send to Students' Union	Send to Students' Union, Percy Gee Building via Dept Office 0/29

Clinical Waste

Clinical waste is defined as human or animal tissue or fluids, excretions, syringes, needles, swabs, dressings, and any other material which unless rendered safe may prove hazardous to any person coming into contact with it.

Clinical waste should be non-infectious. If you plan to create infectious waste then please contact the Departmental Safety Officer first. An example of infectious waste would be blood from a non-healthy human patient.

The waste should be divided as follows:

	Sharps	non-Sharps
Non-infectious	Yellow plastic Sharpak bin	Yellow plastic bag
Infectious	Contact Departmental Safety Officer	Contact Departmental Safety Officer

Sharps must always be disposed of into a rigid plastic sharps bin

All bagged clinical waste should be put in the freezer in room HWB 4/40 and labelled according to instructions. You will also need to fill in a record sheet within this room.

This waste is collected every Tuesday by a member of Departmental Technical Staff and taken to the MSB Clinical Waste Store.

Clinical waste in sharps bins can be taken to the MSB store where it is collected every Wednesday. Please contact DSO or Department Technical Staff for further information.

Chemical Waste Disposal

The following is only a guide. In case of any doubt please contact the Departmental Safety Officer (DSO) or a member of technical staff.

This table generally assumes **small amounts** (ml or mg). For large amounts, or in the case of surplus chemicals, please contact the DSO who will arrange for professional disposal.

Chemical Waste Disposal		
<u>Hazard type</u>	<u>Specific disposal problem</u>	<u>Solution</u>
Harmful/Irritant	Harmful to plumbing staff and sewage workers	Dilute sufficiently to minimise hazard – down sink with plenty of running water
Corrosive	Damage to sinks, drainage system	Dilute to between pH 6 and 8 before disposal
Highly Flammable	Dangerous for plumbing staff; risk of fire	Dilute sufficiently to reduce flammability – down sink with copious amounts of running water
Toxic	Harm to plumbing staff, sewage staff, and environment	Dilute sufficiently to reduce toxicity – down sink with copious amounts of running water
Environmental toxin	Environmental damage	Limit to trace amounts to sink
Very toxic /Mutagen/Carcinogen/ Teratogen	Harm to plumbing staff, sewage staff, and environment	Contact DSO for advice
Deteriorated solvents and mercury	N/A	Contact DSO or safety services for advice <u>immediately</u> upon discovery of item

Remember that the disposal route for each chemical should be specified on the COSHH Form

Location of spill kits

Henry Wellcome Building – room 4/23 next to the -80 freezer

Henry Wellcome Building – room 0/48 Departmental Store (Safety Point)

Medical Sciences Building (floor 3) – Safety Point opposite room 340

(The Safety Points contain a chemical spill kit, aprons, dustpan and brush and a variety of other items that can be used for cleaning up spills.)

Please make sure you know where the spill kits are in case they are needed in an emergency

Departmental Contacts

(Professional Services Managers and Technical Team)

Name	Role	Email	Location
Karen Monger	Departmental Manager	km13@le.ac.uk	HWB 0/28
Jon Tillotson-Roberts	Technical Services Manager Departmental Safety Officer (DSO)	jar20@le.ac.uk	HWB 0/05
Nina Bhanji	Deputy Technical Services Manager (Secondment) [Support for : HWB 1/12 and 1/18]	njb7@le.ac.uk	HWB 0/04
Laurence Dawkins-Hall	Technician (Secondment) Support for : HWB 1/12 and 1/18	lsh11@le.ac.uk	HWB 1/18
Lory Francescut	Senior Technician Support for: HWB 4/43, 4/51 & MSB 314-318 Cell Culture Facilities on floor 4 HWB	lf43@le.ac.uk	HWB 4/66
Jacque Greenwood	Senior Technician Support for : HWB 3/37 – 3/43	jag7@le.ac.uk	HWB 3/37
Tara Hardy	Senior Technician Support for : HWB 2/19, 2/38 and 2/41	th25@le.ac.uk	HWB 2/42
Christian Lucas	Senior Technician Support for : HWB 3/11 and 3/19	cml29@le.ac.uk	HWB 3/19
Manijeh Maleki-Dizaji	Technician Support for: HWB 2/33 and 2/36	mmd9@le.ac.uk	HWB 2/55
Raj Mistry	Senior Technician Support for: HWB 4/13 and 4/19	mis@le.ac.uk	HWB 4/01
Sharon Munday	Technician Support for: HWB 1/40 (Protex)	slm75@le.ac.uk	HWB 1/40
Dipti Vashi	Technician Support for: HWB 1/40 and 1/45	dv47@le.ac.uk	HWB 1/45

If you have any queries or feedback relating to this booklet then please contact a member of the Departmental Technical team