# COSHH FORM



# Control of Substances Hazardous to Health

# Animal Allergens Group Risk Assessment

**Always follow good laboratory practice, full guidance at** [**http://www.docs.csg.ed.ac.uk/Safety/policy/p5cl/p5cl2.pdf**](http://www.docs.csg.ed.ac.uk/Safety/policy/p5cl/p5cl2.pdf)

**Each section has corresponding in depth guidance (section 2) for completion – please ensure you follow this guidance when completing this assessment (**[**http://www.docs.csg.ed.ac.uk/Safety/ra/COSHH\_notes.pdf**](http://www.docs.csg.ed.ac.uk/Safety/ra/COSHH_notes.pdf)**).**

**This form can be used to evaluate the hazards of a single substance, group of related substances or a process/procedure as well as any proprietary purchased materials.**

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| School/Management Unit | CVS | Assessment: group |  |
| Title of Activity | Risk Assessment detailing the activities your group might be engaged in, the potential exposure to Lab Animal Allergens, and the minimal Respiratory Protective Equipment (RPE) required for this work. Procedures when carrying out live animal work and the allergies that can arise from this (dander producers only). |
| Location(s) of Work  | All nominated BVS rodent areas |

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| **Outline of task/method:****NOTES:**All rodent husbandry activity and technical procedures where personnel directly handle animals, could lead to personnel being exposed to LAA. All staff who work with laboratory animals must be registered on the COSHH Health Passport System at <https://www.edweb.ed.ac.uk/health-safety/online-resources/online-tools/health-passport> – this system holds your COSHH health record as well as managing your access requests to all BVS managed animal facilities.**Exposure and health effects** - common allergens derived from animals and insects are found in the proteins of body tissues and the excretions and secretions of most animals including urine, hair, fur, feathers, dander, saliva and serum.Respiratory - signs and symptoms of asthma include:* attacks of wheezing, coughing, chest tightness or shortness of breath. Associated conditions are;
* rhinitis (sneezing/runny nose) and/or
* conjunctivitis (itchy and inflamed red eyes)
* The symptoms can develop immediately after exposure, but sometimes appear several hours after exposure, possibly at night, and so any link with workplace activities may not be obvious.

Skin - signs and symptoms:* The most common symptom is inflammation known as dermatitis or eczema. It is characterised by;
	+ rubor (redness) and calor (heat) from dilation of local blood vessels,
	+ tumour (swelling) and blistering from plasma leaking from the vessels to the surrounding tissue and
	+ itch caused by stimulation of nerve fibres
* Secondary changes due to infection and scratching include crusting, ulcers and thickening of the skin

External agents tend mostly to come into contact with the hands and forearms, so around 95% of work-related skin diseases occur in this area. The majority of the remainder are on the face.Use the table below to record your groups activities and potential exposure to LAA and determine the controls required, these include* + The use of engineering controls such as, safety cabinets, laminar flow changing stations, downdraught tables, the use of individually vented cages (IVCs).
	+ Procedural changes, such as reduce the number of animals and / or the length of time you are exposed to them, dampen down fur and the use of drapes during surgery, and observe animals using CCTV.
	+ If still required, the **minimum** respiratory protection equipment (RPE) required to control against residual LAA exposure.
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**Common tasks which have the potential to create an exposure to AAs**

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| **Activities within BVS facilities** | **RPE required, as a minimum** | If doing activity:Add # of mice and frequency of activity If not just put N/A |
| Feeding animals, ie Changing diet | P3 half mask as a minimum |  |
| Handling for maze/general behaviour work | P3 half mask as a minimum RPE can be removed if observing from another room but must be put back on for removal of the animal from the maze. |  |
| Handling for shaving | P3 half mask as a minimum during the whole procedure from taking animal out of cage until shaving is complete and animal is anaesthetised |  |
| Surgery – anaesthetised | Downdraught table is the preferred method of control or fume cupboard/biological safety cabinet, but draping or wetting/dampening of the animal can also be used if suitable to the procedure. P3 half mask as a minimum if no other controls in place, such as downdraught table or draping |  |
| Surgery – culled | Suitable RPE (P3 half mask as a minimum) must be worn when culling. Downdraught table is the preferred method of control or fume cupboard/biological safety cabinet, but draping or wetting/dampening of the animal can also be used if suitable to the procedure P3 half mask as a minimum if no other controls in place, such as downdraught table or draping |  |
| Specialist equipment – such as microscopy | Downdraught table is the preferred method of control, but draping or wetting/dampening of the animal can also be used if suitable to the procedure P3 half mask as a minimum if no other controls in place, such as downdraught table or draping If engineering controls/RPE is not practical with the microscopy procedure then minimize risk of LAA by limiting contact time and numbers of animals completed – specialist advice may be required |  |
| Surgery – handling post-surgery health checks | P3 half mask as a minimum |  |
| Experimental or procedure rooms animals in cages | Cover conventional cages with tissue or similar to reduce likelihood of LAAs in the atmosphere |  |
| Transport of animals – within unit to another room or to a room outwith the unit | Animal must be held in a suitable container in the following preferred order:* IVC cage
* specific animal transport cage/box
* conventional cages – must add a covering to the top of the cage
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| Working with animal tissues or small samples as per research risk assessment | No extra precautions required |  |

### A. Hazards including any substances produced during the procedure

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| **Hazard(s) – state name of substance(s) and classify hazard (see guidance notes)** | **Present Risk Evaluation**Low/Med/High | **Control Measures** (i.e., alternative work methods / mechanical aids / engineering controls, etc.) | **Risk Evaluation after control**Low/Med/High |
| Exposure to Lab Animal AllergensSkin irritationRespiratory sensitization See above table | *Level depends on activities and frequency see above.* | Must be carried out in designated animal unit in accordance with Personal/Project licence. **BVS facility*** Room engineering controls – 12-16 air changes/hour, uni-directional air flow, pressure difference with the corridor, close fitting doors
* Other engineering controls – eg, specific Individual Ventilated Caging (IVC), Safety Cabinets, Safe Change, Laminar Air Flow cabinets (LAF), cage wash Dump Stations and Downdraught Equipment.
* Training in the correct and safe handling of rodents, reducing the exposure to LAA.

Related imageRelated imageRPE dictated by activitiesRelated image*State the minimal RPE required for work*Individuals would need to fill out their own personal COSHH form to see if it is required for them.Training - all personnel must be trained in the safe handling of rodents, reducing the level of exposure to LAA. Wearing PPE Related imageRelated image |  |

Risk evaluation should be based on hazard classification and hazard statements – if control methods stated above reduce the risk to low at this point, the risk assessment is complete. If any medium to high hazards remain, please continue to complete the rest of the form.

B. Exposure route(s) by which harm may occur

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| --- | --- | --- | --- | --- | --- |
| Skin Contact | Skin Absorption | Eye Contact | Inhalation | Ingestion | Injection via sharps |
| ✓ |  | ✓ | ✓ | ✓ |  |

### C. Engineering Control Measures (Fume cupboards/LEV etc.)

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| State any engineering controls required for this task/method;**BVS Facilities**General room ventilation – 16-20 air changes/hourIsolators – housing rodentsIVC’s – housing rodentsSafe change cage stations/LAF cabinets – animal holding areasDowndraught Tables – procedure roomsOther ventilated cabinets – eg, Fume cupboards, Class II Safety Cabinets, found in procedure rooms  |

### D. Personal Protective Equipment (PPE)

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| State any PPE required for this task/method. Include which type and when they are to be worn;BVS FacilitiesStandard unit PPE is defined on the change room entry signs and normally consists of,* Boiler suit or long sleeve scrub top and trousers
* Mob cap
* Unit shoes

Additional PPE (eg, RPE, disposable gloves, room gowns) will depend on the area and activity* ***Corridor areas*** – No additional PPE required
* ***Animal holding rooms/Procedure rooms***
1. If active in animal/cage handling including cage cleaning – Don additional room gown, disposable gloves and RPE.
2. No animal activity in room housing conventional caging – Don RPE.
3. No animal activity in room housing IVC caging – No additional PPE required

**The University’s policy on RPE has the following hierarchy for half-masks:*** Re-usable half-masks, either the 3M 7500 or Sundstrom SR100
* Disposable half-mask, if no suitable fit is achieved with the re-usable half mask or for very short term work, either the Alpha Solway 3030V or S-series

**Powered respirators as follow:*** 3M Jupiter Powered Air Turbo Unit for both particulate (LAAs) and chemical protection (if required)
* 3M Versaflo TR-300 Powered Air Respirator for particulate (LAAs) only
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### E. Health Monitoring

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| Is biological monitoring required to ensure that the control of exposure to the hazardous substance(s) is adequate?Not by the user – Particular CBS Units may have general allergen level monitoring in place. | Yes | No |
| x |  |
| Is health surveillance required for the protection of the health of employees? Health surveillance may be required if working with animals or other skin or respiratory sensitisers, please see <http://www.ed.ac.uk/schools-departments/health-safety/guidance/hazardous-substances/sensitisers> for further guidanceNote:All ‘visitors’ must complete BVS visitors form which details health effects and health conditions of concerncontact the Occupational Health Unit for an appointment (occupational.health@ed.ac.uk, 50 8190) – if appointment not made locally | x |  |

F. Training

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| *State any health and safety training required for this task/method*;* Completion of on-line *Learn* courses in *LAA*, *RPE* and *Introduction to Biological Safety*.
* Correct use and maintenance of RPE eg, powered respirators/face fitted respirators and P3 disposable masks
* Safe operation of containment devices, eg IVC’s, Isolators, safe change cleaning stations, downdraught tables, ventilated safety cabinets and cage wash dump stations.
* Compliance with relevant SOPs, COSHH/Risk Assessments and Guidance note EH76 (Control of Laboratory Animal Allergen)
* Competence in the handling of laboratory rodents.
* Completion of the COSHH (part1) training session.
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G. Supervision

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| *State what supervision (if any) is required for persons undertaking this task/method*:Supervision required for new or inexperienced personnel. All techniques need to be signed off and added to your Training record before you can work unsupervised. |

H. Implications for persons not involved in the work activity

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| Persons identified may require to be informed, in part or in full, of the information contained in the Safe System of Work.All Academic staff, Undergraduate/Postgraduate students, Visitors, Maintenance staff, Contractors and Emergency personnel that enter the animal facility. |

### I. Emergency procedures

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| State all emergency procedures including contact names and numbers;First Aid: All scratches, bites or contamination by animal fluids are treated immediately by a First Aider. Report and record all accidents in appropriate records and inform the Unit Manager or Deputy Unit Manager.Further medical assistance is sought if the condition or injury does not improve.Fire fighting: Evacuation proceduresSpill Management: Use damp materials for cleaning up.Any others: N/A |

J. Waste disposal

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| State waste disposal routes for all hazardous substances in this task/method;**Carcasses:** are placed in a yellow clinical waste bin and stored in the designated -20C.**Blood tubes**: Disposed into a red lidded cinbin**All solid waste**: is placed in a yellow clinical waste bin**Sharps**: are disposed into a yellow lidded cinbin. |

**If in doubt contact the University Waste and Environmental Manager Ext. 514287.**

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| Are you satisfied that the control measures outlined above are adequate to control the risks to health from the hazardous substances used in the work activity described to the lowest level reasonably practicable?**If no, work can not continue until safe to do so** | Yes | No |
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**K. Accreditation and verification of COSHH risk assessment**

When this assessment is complete it should be signed and dated by the assessor and then checked and signed by the person responsible for operations in that section of the School/Unit where the work is being carried out. You must ensure that the person undertaking the task is competent to do so and has received sufficient information, instruction and training and has seen and signed the Safe System of Work.

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| Assessed by: |  | Checked by: |  |
| Signature: |  | Signature: |  |
| Date: |  | Date: |  |

### L. Review of Assessment

**This assessment should be reviewed annually and immediately if there is reason to suspect that it is no longer valid (for example after any accidents or incidents) or if there is a significant change in the work to which it relates.**

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| Assessed by: |  | Checked by: |  |
| Signature: |  | Signature: |  |
| Date: |  | Date: |  |