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| **Biological COSHH Risk Assessment** |

A biological COSHH risk assessment is required for the possession or use of biological agents and hazards. Please complete this form by computer and register any hazard group 2 and 3 biological agents and hazards using the Pathogen and Toxin Registration form. Please note that the possession or use of any hazard group 3 biological agent or the hazard group 2 biological agents *Bordetella pertussis*, *Corynebacterium diphtheriae* and *Neisseria meningitidis* requires permission from your School Safety Committee and HSE. Safety Coordinators will advise Principal Investigators on all aspects of biological COSHH risk assessment and HSE notification. Guidance on completing this form is provided on the Biological COSHH Risk Assessment section of the SEPS website.

|  |  |
| --- | --- |
| Title of project | [ENTER DETAILS HERE] |
| Project reference | [ENTER DETAILS HERE] |
| Principal investigator / Responsible person | [ENTER DETAILS HERE] |
| School / Institute | [ENTER DETAILS HERE] |
| Date of assessment | dd/mm/yyyy |
| Location of work  (Buildings & room numbers) | [ENTER DETAILS HERE] |

**Section 1 Project or Activity**

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| 1.1: Brief description of project or activity (Preferably no more than 500 words unless the work is very complex) |
| [ENTER DETAILS HERE] |

**Section 2 Hazards**

|  |  |
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| 2.1: Biological agents or hazards | |
| Pathogens (Hazard Group 1) | [ENTER DETAILS HERE] |
| Pathogens (Hazard Group 2) | [ENTER DETAILS HERE] |
| Pathogens (Hazard Group 3) | [ENTER DETAILS HERE] |
| Toxins | [ENTER DETAILS HERE] |
| Carcinogens | [ENTER DETAILS HERE] |
| Allergens | [ENTER DETAILS HERE] |
| Human primary or continuous cell cultures | [ENTER DETAILS HERE] |
| Animal primary or continuous cell cultures | [ENTER DETAILS HERE] |
| Human cells or tissues | [ENTER DETAILS HERE] |
| Animal cells or tissues | [ENTER DETAILS HERE] |
| Human blood | [ENTER DETAILS HERE] |
| Patient contact | [ENTER DETAILS HERE] |
| Animals | [ENTER DETAILS HERE] |
| Plants | [ENTER DETAILS HERE] |
| Soils | [ENTER DETAILS HERE] |
| Waste | [ENTER DETAILS HERE] |
| Other biological hazards | [ENTER DETAILS HERE] |
| [ENTER DETAILS HERE] | |

**Section 3 Risks**

|  |  |  |
| --- | --- | --- |
| 3.1: Human, animal or plant diseases or conditions or environment damage associated with biological agents or hazards | | |
| [ENTER DETAILS HERE] | | |
| 3.2: Potential routes of exposure to humans, animals or plants or release to environment | | |
| Inhalation ⬜ Ingestion ⬜ Injection ⬜ Absorption ⬜ Other ⬜ | | Select all that apply |
| [ENTER DETAILS HERE] | | |
| 3.3: Use of biological agents or hazards | | |
| Small scale ⬜ Medium scale ⬜ Large scale ⬜ Fieldwork ⬜ Animals ⬜ Plants ⬜ Other ⬜ | | Select all that apply |
| [ENTER DETAILS HERE] | | |
| 3.4: Frequency of use | | |
| Daily ⬜ Week ⬜ Monthly ⬜ Other ⬜ | | Select one |
| [ENTER DETAILS HERE] | | |
| 3.5: Maximum amount or concentration used | | |
| Negligible ⬜ Low ⬜ Medium ⬜ High ⬜ | | Select one |
| [ENTER DETAILS HERE] | | |
| 3.6: Levels of infectious aerosols | | |
| Negligible ⬜ Low ⬜ Medium ⬜ High ⬜ | | Select one |
| [ENTER DETAILS HERE] | | |
| 3.7: Potential for exposure to biological agents or hazards | | |
| Negligible ⬜ Low ⬜ Medium ⬜ High ⬜ | | Select one |
| [ENTER DETAILS HERE] | | |
| 3.8: Who might be at risk (\*If you need advice contact the University Occupational Health Service) | | |
| Staff ⬜ Students ⬜ Visitors ⬜ Public ⬜ Young people (<18yrs) ⬜ \*New and expectant mothers ⬜ Other ⬜ | | |
| [ENTER DETAILS HERE] | | |
| 3.09: Assessment of risk to human health (Prior to use of controls) | | |
| **Level of risk** | **Effectively zero ⬜ Low ⬜ Medium/low ⬜ Medium ⬜ High ⬜** | Select one |
| 3.10: Assessment of risk to environment (Prior to use of controls) | | |
| **Level of risk** | **Effectively zero ⬜ Low ⬜ Medium/low ⬜ Medium ⬜ High ⬜** | Select one |

**Section 4 Controls to Eliminate or Reduce Risks**

|  |  |
| --- | --- |
| 4.1: Containment | |
| Laboratory ⬜ Animal facility ⬜ Plant facility ⬜ Other ⬜ | Select all that apply |
| [ENTER DETAILS HERE] | |
| 4.2: Containment level | |
| Containment level (CL 1) ⬜ Containment level (CL 2) ⬜ Containment level (CL 3) ⬜ | Select one |
| [ENTER DETAILS HERE] | |
| 4.3: Microbiological safety cabinets (MSC) | |
| Class 1 ⬜ Class 2 ⬜ Class 3 ⬜ Other ⬜ | Select all that apply |
| [ENTER DETAILS HERE] | |
| 4.4: Sharps controls | |
| [ENTER DETAILS HERE] | |
| 4.5: Other controls | |
| [ENTER DETAILS HERE] | |
| 4.6: Personal protective equipment (PPE) | |
| Lab coat ⬜ Lab gown ⬜ Surgical scrubs ⬜ Disposable clothing ⬜  Apron ⬜ Spectacles ⬜ Goggles ⬜ Face shield ⬜  Gloves ⬜ Special headwear ⬜ Special footwear ⬜ Other ⬜ | Select all that apply |
| [ENTER DETAILS HERE] | |
| 4.7: Respiratory protective equipment (RPE) | |
| Disposable mask ⬜ Filter mask ⬜ Half face respirator ⬜ Full face respirator ⬜  Powered respirator ⬜ Breathing apparatus ⬜ Other ⬜ | Select all that apply |
| [ENTER DETAILS HERE] | |
| 4.8: Storage of biological agents or hazards | |
| [ENTER DETAILS HERE] | |
| 4.9: Transport of biological agents or hazards | |
| [ENTER DETAILS HERE] | |
| 4.10: Inactivation of biological agents or hazards | |
| Disinfection ⬜ Autoclave ⬜ Fumigation ⬜ Incineration ⬜ Other ⬜ | |
| [ENTER DETAILS HERE] | |
| 4.11: Waste disposal | |
| [ENTER DETAILS HERE] | |
| 4.12: Health surveillance or immunisation (If you need advice contact the University Occupational Health Service) | |
| [ENTER DETAILS HERE] | |
| 4.13: Instructions, training and supervision | |
| [ENTER DETAILS HERE] | |
| 4.14: HSE notification and consent where required | |
| [ENTER DETAILS HERE] | |
| **4.15: Scottish Government or DEFRA Animal Health, Plant Health or other licence where required** | |
| [ENTER DETAILS HERE] | |

**Section 5 Emergency Procedures**

|  |  |  |
| --- | --- | --- |
| 5.1: Emergency procedures | | |
| [ENTER DETAILS HERE] | | |
| 5.2: Emergency contacts | | |
| Name | Position | Telephone |
| [ENTER DETAILS HERE] | Principal Investigator | [ENTER DETAILS HERE] |
| [ENTER DETAILS HERE] | [ENTER DETAILS HERE] | [ENTER DETAILS HERE] |

**Section 6 Approval**

|  |  |  |
| --- | --- | --- |
| 6.1: Assessor | | |
| Name | Signature | Date |
| [ENTER DETAILS HERE] | [ENTER DETAILS HERE] | [ENTER DETAILS HERE] |
| 6.2: Principal investigator / Responsible person | | |
| Name | Signature | Date |
| [ENTER DETAILS HERE] | [ENTER DETAILS HERE] | [ENTER DETAILS HERE] |

**Risk Estimation Matrix**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Consequence of hazard** | **Likelihood of hazard** | | | |
| **High** | **Medium** | **Low** | **Negligible** |
| **Severe** | High | High | Medium | Effectively zero |
| **Modest** | High | Medium | Medium / Low | Effectively zero |
| **Minor** | Medium / Low | Low | Low | Effectively zero |
| **Negligible** | Effectively zero | Effectively zero | Effectively zero | Effectively zero |



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| **COSHH Risk Assessment** |

A COSHH risk assessment is required for the possession or use of hazardous substances including source materials, products, known intermediates and by-products. Please complete this form by computer and it should be approved and signed by the principal investigator or responsible person. Guidance on completing this form is provided in the COSHH Risk Assessment section of the SEPS website.

|  |  |
| --- | --- |
| Title of project | [ENTER DETAILS HERE] |
| Project reference | [ENTER DETAILS HERE] |
| Principal investigator / Responsible person | [ENTER DETAILS HERE] |
| School / Institute | [ENTER DETAILS HERE] |
| Date of assessment | dd/mm/yyyy |
| Date of next review | dd/mm/yyyy |
| Location of work  (Buildings & room numbers) | [ENTER DETAILS HERE] |

# Section 1 Project or Activity

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| --- |
| 1.1: Brief description of project or activity including reaction conditions |
| [ENTER DETAILS HERE] |

# Section 2 Hazards

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2.1: Hazardous substances used and generated | | | | | |
| Chemical | Major hazardous properties | Quantity | Concentration | Phrases | Workplace exposure limit (WEL) |
| [ENTER DETAILS HERE] |  |  |  |  |  |
| [ENTER DETAILS HERE] | Carcinogens, mutagens or reproductive toxins |  |  |  |  |
| [ENTER DETAILS HERE] | Dusts or fumes |  |  |  |  |
| [ENTER DETAILS HERE] | Asphyxiants |  |  |  |  |
| [ENTER DETAILS HERE] | Other substances hazardous to health |  |  |  |  |

# Section 3 Risks

|  |  |  |
| --- | --- | --- |
| 3.1: Human diseases, illnesses or conditions associated with hazardous substances | | |
| [ENTER DETAILS HERE] | | |
| 3.2: Potential routes of exposure | | |
| Inhalation ⬜ Ingestion ⬜ Injection ⬜ Absorption ⬜ Other ⬜ | | Select all that apply |
| [ENTER DETAILS HERE] | | |
| 3.3: Use of hazardous substances | | |
| Lab scale ⬜ Pilot plant scale ⬜ Large scale ⬜ Fieldwork ⬜ Animals ⬜ Plants ⬜  Maintenance ⬜ Cleaning ⬜ Other ⬜ | | Select all that apply |
| [ENTER DETAILS HERE] | | |
| 3.4: Frequency of use | | |
| Daily ⬜ Week ⬜ Monthly ⬜ Other ⬜ | | Select one |
| [ENTER DETAILS HERE] | | |
| 3.5: Potential for exposure to hazardous substances | | |
| Low ⬜ Medium ⬜ High ⬜ | | Select one |
| [ENTER DETAILS HERE] | | |
| 3.6: Who might be at risk (\*Contact the University Occupational Health Service) | | |
| Staff ⬜ Students ⬜ Visitors ⬜ Public ⬜ Young people (<18yrs) ⬜ \*New and expectant mothers ⬜ Other ⬜ | | |
| [ENTER DETAILS HERE] | | |
| 3.7: Assessment of risk to human health (Prior to use of controls) | | |
| **Level of risk** | **Low ⬜ Medium ⬜ High ⬜** | Select one |
| 3.8: Assessment of risk to environment (Prior to use of controls) | | |
| **Level of risk** | **Low ⬜ Medium ⬜ High ⬜** | Select one |

# Section 4 Controls to Reduce Risks as Low as Possible

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| 4.1: Containment | | |
| Laboratory ⬜ Room ⬜ Controlled area ⬜ Total containment ⬜ Glove box ⬜  Fume cupboard ⬜ Local exhaust ventilation (LEV) ⬜ Access control ⬜ Other ⬜ | | Select all that apply |
| [ENTER DETAILS HERE] | | |
| 4.2: Other controls | | |
| [ENTER DETAILS HERE] | | |
| 4.3: Storage of hazardous substances | | |
| [ENTER DETAILS HERE] | | |
| 4.4: Transport of hazardous substances | | |
| [ENTER DETAILS HERE] | | |
| 4.5: Personal protective equipment (PPE) and describe when it will be used | | |
| Lab coat ⬜ Overalls ⬜ Chemical suit ⬜  Disposable clothing ⬜  Apron ⬜ Spectacles ⬜ Goggles ⬜ Face shield ⬜  Gloves ⬜ Special headwear ⬜ Special footwear ⬜ Other ⬜ | | Select all that apply |
| [ENTER DETAILS HERE] | | |
| 4.6: Respiratory protective equipment (RPE) and describe when it will be used | | |
| Disposable mask ⬜ Filter mask ⬜ Half face respirator ⬜ Full face respirator ⬜  Powered respirator ⬜ Breathing apparatus ⬜ Other ⬜ | | Select all that apply |
| [ENTER DETAILS HERE] | | |
| 4.7: Waste disposal routes and chemical catergories | | |
| Liquid ⬜ Solid ⬜ Gas ⬜ Inorganic ⬜ Organic ⬜ Aqueous ⬜ Mixed ⬜ Other ⬜ | | |
| [ENTER DETAILS HERE] | | |
| 4.8: Monitoring exposure (If you need advice contact the University Occupational Health Service) | | |
| [ENTER DETAILS HERE] | | |
| 4.9: Health surveillance (If you need advice contact the University Occupational Health Service) | | |
| [ENTER DETAILS HERE] | | |
| 4.10: Instruction, training and supervision | | |
| Special instructions are required to safely carry out the work (If yes enter details below) | | Yes ⬜ |
| [ENTER DETAILS HERE] | | |
| Special training is required to safely carry out the work (If yes enter details below) | | Yes ⬜ |
| [ENTER DETAILS HERE] | | |
| A: Work may not be carried out without direct personal supervision (If yes enter details below) | | Yes ⬜ |
| B: Work may not be started without the advice and approval of supervisor (If yes enter details below) | | Yes ⬜ |
| C: Work can be carried out without direct supervision | | Yes ⬜ |
| Supervisor(s) | [ENTER DETAILS HERE] | |

# Section 5 Emergency Procedures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5.1: Emergency procedures | | | | |
| [ENTER DETAILS HERE] | | | | |
| 5.2: Minor spillage or release | | | | |
| Specify procedure | [ENTER DETAILS HERE] | | | |
| Other actions | Evacuate and secure laboratory / area | | | Yes ⬜ |
| Inform competent person (eg principal investigator / school safety officer etc) | | | Yes ⬜ |
| 5.3: Major spillage or release | | | | |
| Specify procedure | [ENTER DETAILS HERE] | | | |
| Other actions | Evacuate building by fire alarm | | | Yes ⬜ |
| Call Security and the Fire and Rescue Service | | | Yes ⬜ |
| Inform competent person (eg principal investigator / school safety officer etc) | | | Yes ⬜ |
| 5.4: Fire Precautions | | | | |
| Carbon dioxide ⬜ Water ⬜ Powder ⬜ Foam ⬜ Blanket ⬜ Automatic fire suppression ⬜ Other ⬜ | | | | |
| [ENTER DETAILS HERE] | | | | |
| 5.5: First aid and details of initial response | | | | |
| Wash with copious amounts of water and apply polyethylene glycol (PEG) 300 for phenol ⬜ Wash with copious amounts of water and apply calcium gluconate gel for hydrofluoric acid ⬜ Remove affected clothing and wash with copious amounts of water for skin contact ⬜ Oxygen for cyanide ⬜ Eye wash station ⬜ Emergency shower ⬜ Other ⬜ | | | | |
| [ENTER DETAILS HERE] | | | | |
| 5.6: Emergency contacts | | | | |
| Name | | Position | Telephone | |
| [ENTER DETAILS HERE] | | Principal Investigator / Responsible person | [ENTER DETAILS HERE] | |
| [ENTER DETAILS HERE] | | [ENTER DETAILS HERE] | [ENTER DETAILS HERE] | |

# Section 6 Approval

|  |  |  |
| --- | --- | --- |
| 6.1: Assessor | | |
| Name | Signature | Date |
| [ENTER DETAILS HERE] | [ENTER DETAILS HERE] | [ENTER DETAILS HERE] |
| 6.2: Principal investigator / Responsible person | | |
| Name | Signature | Date |
| [ENTER DETAILS HERE] | [ENTER DETAILS HERE] | [ENTER DETAILS HERE] |

# Risk Estimation Matrix

|  |  |  |  |
| --- | --- | --- | --- |
| **Consequence of hazard** | **Likelihood of hazard** | | |
| **High** | **Medium** | **Low** |
| **Severe** | High | High | Medium |
| **Moderate** | High | Medium | Medium/low |
| **Minor** | Medium/low | Low | Low |

# Record of Workers

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| Name | Signature | Date |
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