GENERAL HEALTH AND SAFETY RISK ASSESSMENT FORM

| Site | **Haworth Building, Edgbaston Campus** | **Department** | **School of Chemistry** | **Version / Ref No.** |  |
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| **Activity Location** | **Haworth Building** | **Activity Description** | **Return to Campus COVID-19: Building Risk Assessment****Up to 45 post-docs, technical staff, professional services, contractors and cleaning staff for weeks 1-4. Increasing to 65 upon transition to Phase 2 with some PhD students returning to research.**  |
| **Assessor** | **Katherine Webb** | **Assessment Date** | **01 July 2020** | **Date of Assessment Review** | **Recommended weekly during phased return** |
| **Academic / Manager Name** | **Bryan Fryer** | **Academic / Manager Signature** |  |
| Hazard Assessment | Control Assessment | Actions |
| Hazard Category | Hazards Identified | Who might be harmed?StaffStudentsContractors Others | How might people be harmed? | Existing Control Measures | Initial Risk Rating | Are these adequate?Yes/No | Changes to/ Additional Controls | Residual Risk Rating | Owner | Due Date | Action Complete |
| S | L | R | S | L | R |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OrganisationalOrganisational | Psychological well beingPsychological Well-being | Staff / StudentsStaff/ students | Anxiety and stress caused by concerns around returning to work and studies on CampusAnxiety and stress caused by concerns around returning to work and studies on Campus | Regular communication is in place (individual and group) via virtual team meetings, school coffee mornings, the School health and safety committee and School meetingsto ensure staff and students are not ill-informed about returning to work safely (all meetings held via Zoom or Skype to minimise face-to-face contact).Advice is shared with staff members and staff have been fully briefed and kept up to date with current advice on staying protected through the University’s lines of communications (i,e line managers, Internal Comms) and shared with staff via virtual team meetings, school coffee mornings, the School health and safety committee and School meetings (via Zoom/ Skype)and the University’s Coronavirus FAQs [click here](https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx). Regular updates are to be provided to PG students through existing communications and via Canvas. This Risk assessment is to be shared with staff. An Executive Summary of the Risk assessment is to be shared with students. Both documents can be found [here.](https://collaborate.bham.ac.uk/eps/soc-committees/Shared%20Documents/Chemistry%20Return%20to%20Research/Chemistry%20R2R%20-%20User%20Group) New workplace/controls put in place to reduce risk of exposure to COVID 19 are documented in procedures and policies and disseminated to employees and students through Line Managers, Primary Investigators and the School Technical Manager. These include:* ***Social distancing: General guidance for staff and students***
* ***Social distancing: Buildings adaptations guidance***
* ***Social distancing***: ***Product solutions booklet***
* ***Social distancing: Building checklist***
* ***On-line induction materials for returning to campus***: combination of the guidance and videos.

https://intranet.birmingham.ac.uk/staff/coronavirus/essential-resources-and-checklist.aspx* ***Return to Campus COVID-19: Building Risk Assessment* (This completed Risk Assessment)**

Line managers are aware of how big changes to working arrangements may cause additional work-related stress and affect their employees’ mental health and wellbeing. Contact the University Wellbeing Services team for additional support at occupationalhealth@contacts.bham.ac.uk | 44 | 22 | 88 |  |  |  |  |  |  |  |  |
| BiologicalBiological | Virus transmission in the workplaceVirus transmission in the workplace | Staff/ Students/ Contractors/ VisitorsStaff/ Students/ Contractors/ Visitors | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking. | ***Social distancing: Building checklist***has been completed to identify the control measures to consider reducing the risk of workplace infections.Staff continue to work remotely where possible. Managers ensure staff and students with any form of illness do not attend work. Where that illness is COVID-19 related, additional measures must be taken to decontaminate the individual’s workspace and to notify those who have potentially been exposed. Contractors and visitors will notified that they must contact the school in the event of illness so that their visit may be rescheduled. The University’s [***On-line induction materials for returning to campus***](https://intranet.birmingham.ac.uk/staff/coronavirus/essential-resources-and-checklist.aspx) combination of the guidance and videos have been provided and completed for all staff and students returning to work in University buildings*.* To help with consistency and adherence to building specific measures such as access routes, occupancy limits etc. staff from other departments accessing the building (such as cleaning and Estates) have received a building specific induction including information and inductions.Posters are displayed in lift lobbies and welfare spaces that encourage staying home when sick; and cough and sneeze etiquette.Managers keep track of when staff can return to work after the symptom free period. Schedules for essential services and contractor visits revised to reduce interaction and overlap between people e.g., carrying out services out of hours. Any work that is to be completed outside normal working hours must have a separate approved risk assessment and written approval ahead of time from the school health and safety co-ordinator/ academic lead. Non-essential trips within buildings and sites discouraged and reduced, e.g. access to some areas restricted. The use of radios or personal telephones encouraged ensuring cleaning them between uses. | 44 | 22 | 88 |  |  |  |  |  |  |  |  |
| EnvironmentalEnvironmentalEnvironmentalEnvironmentalEnvironmentalEnvironmentalEnvironmentalEnvironmental | Virus transmission in the workplace due to lack of social distancing Virus transmission in the workplace due to lack of social distancing Virus transmission in the workplace due to lack of social distancing Virus transmission in the workplace due to lack of social distancing Virus transmission in the workplace due to lack of social distancing Virus transmission in the workplace due to lack of social distancing Virus transmission in the workplace due to lack of social distancingVirus transmission in the workplace due to lack of social distancing | Students/ StaffStudents/ StaffStudents/ StaffStudents/ StaffStudents/ StaffStudents/ StaffStudents/ StaffStudents/ Staff | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.Exposure to respiratory droplets carrying COVID-19 | Workplace routines changed to ensure room/building capacity calculated to maintain social distancing is not exceeded including * Staff and students have been separated into teams to reduce contact between employees.
* Adjusted booking processes in use to reduce the number of people in a lab at the same time to avoid overcrowding.
* Job and location rotation reduced.

Access control for Haworth reviewed and a phased reoccupation put into place. All members of staff with a valid University ID will continue to access the building via swipe card only. Cleaning staff and contractors will be issued with visitor swipe cards where available; or will be required to contact either the Technical Manager or the Building manager upon arrival to request access. Staff and students will not be permitted on site before the date agreed with their line manager without prior approval. Work has been arranged so that staff are able to maintain the government guidelines for social distancing based on our industry which are included in the ***Social distancing: Building checklist***(The latest Guidance on these measures can be found by clicking the following link [Social Distancing Guidelines](https://www.gov.uk/guidance/social-distancing-in-the-workplace-during-coronavirus-covid-19-sector-guidance#shops-running-a-pick-up-or-delivery-service)). Restricted movement systems implemented and visual aids, such as floor strips, signage are used for maintaining two metres distance throughout the building/workplace. Additional handwashing facilities are to be stationed at exit/entry points and cleaning stations are to be stationed in all lift lobbies and in 209A. Staff activities are segregated to promote 2 metres distance including: * Work stations moved or staff relocated. Desks are arranged with employees facing in opposite directions. Display Screen Equipment (DSE) assessments reviewed and revised.
* Areas of work marked out with floor tape to ensure adequate social distancing is in place. Visual management aids in place to remind people of the need for social distancing,
* Headcount capacity to ensure social distance standards have been set and displayed in shared rooms e.g. open plan offices and laboratories.
* Capacity limits have been set for common facility areas (e.g. toilets, welfare areas etc.).
* Staff encouraged to remain on-site including bringing their own lunch and, when not possible, maintaining social distancing while off-site.
* Where available safe outside areas used for break.
* Smaller kitchens use a one out one in policy. Larger kitchens have floor marking to ensure social distancing. All users are encouraged to wash their hands prior to using equipment (kettle) and to wash their hand after use. Additional signage for the correct method for handwashing displayed and additional handwashing units installed throughout the building. All drinking water fountains have been taken out of use.
* Social distancing is marked on the corridor floor prior to entry to the WCs (toilets). Smaller facilities has a one out one in policy. Additional signage has been placed on facilities doors to announce people’s presence and to ensure hands are washed via correct method for handwashing prior to and after use. Building users are reminded to leave the facilities in a respectable condition.

Clear method of socially distancing of staff and visitors described in building induction presentation. Visitor management system in place.Visits from people outside of the building are managed via remote connection/working where this is an option. Where this is not an option visitor arrangements have been revised to ensure social distancing and hygiene at all times.All corridors are :* Marked in areas to ensure social distancing is adhered to (lines on floor 2m apart).
* A One-way system has been implemented for usage of ground floor laboratories. All users must remain 2m apart.
* Corridors have a two way system of use, people using the corridor must stay to their left.

Additional signage in corridors reminding staff about social distancingInformation provided and signed displayed informing people to use the stairwells rather than lifts unless they have difficulty using the stairs. The maximum occupancy of the lift has been reduced (1 user for passenger lifts, 2 users for goods lift) and social distance marked on the floor. Users are encouraged to stand side by side or back to back. Once users have left the lift posters are displayed to encourage them to wash their hands and avoid touching their face.Lifts are still to be used to move heavier / larger / hazardous goods as a planned operation ensuring the lift cannot be stopped on each floor or staff placed on each floor to prevent access to lift until equipment moved.Stairwells are separated down the centre to try and achieve social distancing. Building users using these stairwells have been informed to announce themselves prior to use and to keep to the left.Additional signage in stairwells reminding staff about social distancing.Wash hand / use hand sanitiser on exit from stairwell. Units will be checked twice per day to ensure sufficient volume available. Contact Cleaning Services if refills required. Social gathering amongst employees have been discouraged whilst at work including meetings where alternative arrangements have been provided e.g. virtual meetings. Large gatherings have been cancelled or postponed or alternative IT solutions provided. (Critical Training courses may still be performed but only following the Covid-19 guidance.)Managers perform frequent evaluation against social distances controls using a shared Feedback document circulated via Google Docs and regular Zoom meetings to discuss issues. Staff are reminded on a weekly basis of the importance of social distancing both in the workplace and outside of it via Skype meetings. Where the social distancing guidelines cannot be followed in full in relation to a particular activity (e.g. transport of cryogenic materials), consideration has been given to whether that activity needs to continue, and, if so, all the mitigating actions possible to reduce the risk of transmission between staff have been included in a task specific risk assessment and are being taken. Mitigating actions include: * Further increasing the frequency of hand washing and surface cleaning.
* Keeping the activity time involved as short as possible.
* Using back-to-back or side-to-side working (rather than face-to-face) whenever possible.
* Reducing the number of people each person has contact with by using ‘fixed teams or partnering’ (so each person works with only a few others).
* Re-engineering the technical activity.

Hygiene guidance given via building specific induction; such as avoiding touching eyes, nose, mouth and unwashed hands, cover your cough or sneeze with a tissue, and throw it away in a bin and wash your hands. PPE is provided for individuals working in close contact roles for example, first aiders. The taking of PPE home is not permitted.Adequate training has been made on what PPE is required (i.e. gloves, masks, aprons, Filtering Face Pieces (P3), goggles, the correct donning/doffing of PPE and face fit testing. Where social distancing cannot be maintained for periods exceeding 15 minutes, face coverings are to be worn. Suitable face coverings are to be determined by the nature of the task at hand and will be provided by the School. Public Health England (PHE) quick guides for correct donning and doffing of PPE for [non-AGPs.](https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-non-aerosol-generating-procedures) (aerosol generating procedures) as well as for[AGPs](https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-generating-procedures). 19 has been utilised for examples in best practice for putting on and taking off (donning and doffing).  | 44444444 | 22222222 | 88888888 |  |  |  |  |  |  |  |  |
| Biological BiologicalBiologicalBiological | Suspected case of COVID-19 Suspected case of COVID-19 Suspected case of COVID-19 Suspected case of COVID-19 | Staff/ StudentsStaff/ StudentsStaff/ StudentsStaff/ Students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19.Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19.Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19.Exposure to respiratory droplets contaminated with COVID-19. | Staff must tell their line manager if they develop symptoms. Absence will be managed in accordance to the University guidance provided. Response plan in place in the event a confirmed or suspected case of COVID-19 and communicated and includes:* If a person becomes unwell in the workplace with suspected COVID-19, they will be sent home in accordance to the University guidance. Managers will follow the NHS Test and Trace workplace guidance: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance>
* The area will be cleaned in accordance with the specific Government [guidance](https://www.gov.uk/government/publications/covid-19-decontamination-in-non-healthcare-settings/covid-19-decontamination-in-non-healthcare-settings) and includes:
	+ Cleaning an area with sanitiser after someone with suspected COVID-19 has left.
	+ Where possible the area will be closed and secure for 72 hours, before cleaning.
	+ Disposable gloves, masks and aprons will be worn for cleaning. These will be double bagged, then stored securely for 72 hours then thrown away in the regular rubbish after cleaning is finished
	+ Once symptomatic, all surfaces that the person has come into contact with will be cleaned (including touchpoints)
* Provision and monitoring of adequate supplies of cleaning materials are in place.
* Team briefed on actions to be taken in the event of someone being suspected of having COVID-19.
* Employees to follow the Government advice: <https://www.gov.uk/coronavirus>
* Line managers will maintain regular contact with staff members during this time and monitor for signs of symptoms in the remaining workforce and keep Senior Managers informed of the situation whilst following the Government’s guidance for contact tracing: contact with co-workers: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance>
* If multiple cases of coronavirus appear in a workplace, an outbreak control team from either the local authority or Public Health England will, if necessary, be assigned to help the University manage the outbreak. The University will seek advice from the local authority in the first instance.
* Staff will be told to isolate if they:
	+ have coronavirus symptoms and are awaiting a test result
	+ have tested positive for coronavirus
	+ are a member of the same household as someone who has symptoms or has tested positive for coronavirus
	+ have been in close recent contact with someone who has tested positive and received a notification to self-isolate from NHS test and trace.
* Line managers hold discussions with their staff to identify those considered in ‘at risk’ groups - which include those who are 70 or over, have a long-term condition, are pregnant or have a weakened immune system, or are living/caring for someone in these groups and will ensure additional measures are put in place to protect them including working from home.
* Staff have been encouraged to download the government COVID-19 contract tracing app.

<https://covid19.nhs.uk/> | 4444 | 2222 | 8888 |  |  |  |  |  |  |  |  |
| Biological | Someone entering the workplace with COVID-19 | Staff/ Students/ Contractors/ Visitors | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Companies who regularly attend or work in the building requested to provide their health and safety policy/arrangements / or RAMS (risk assessment and method statement) regarding COVID-19. Anybody planning to visit the site will be informed that they are not to enter if they’re experiencing COVID-19 symptoms or should be self-isolating under the government Guidelines.If a person becomes unwell in a University workplace with suspected COVID-19, they will be sent home in accordance to their company’s guidance. University managers will follow the NHS Test and Trace workplace guidance for any University staff that may have come into contact with them: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance> | 4 | 2 | 8 |  |  |  |  |  |  |  |  |
| EnvironmentalEnvironmentalEnvironmentalEnvironmentalEnvironmental | Virus transmission in the workplaceVirus transmission in the workplaceVirus transmission in the workplaceVirus transmission in the workplaceVirus transmission in the workplace | Staff/ StudentsStaff/ StudentsStaff/ StudentsStaff/ StudentsStaff/ Students | Contact with an object that has been contaminated with COVID-19 and which subsequently transmits this to another person e.g. surfaces, any inanimate objects & touch points including work surfaces, work equipment, door handles, banisters, chair arms and floors.Contact with an object that has been contaminated with COVID-19 and which subsequently transmits this to another person e.g. surfaces, any inanimate objects & touch points including work surfaces, work equipment, door handles, banisters, chair arms and floors.Contact with an object that has been contaminated with COVID-19 and which subsequently transmits this to another person e.g. surfaces, any inanimate objects & touch points including work surfaces, work equipment, door handles, banisters, chair arms and floors. | Individuals have been instructed and are regularly reminded to clean their hands frequently with soap and water for 20 seconds and the importance of proper drying in accordance with the NHS Guidance:<https://www.nhs.uk/live-well/healthy-body/best-way-to-wash-your-hands/>Posters are displayed around the workplace including in welfare facilities.Soap and water and hand sanitiser are provided in the workplace and adequate supplies are maintained and are placed at the entrance to the building, in all lift lobbies and in 209A. Further handwashing facilities are available in all laboratories and toilets throughout Haworth. Individuals are reminded to catch coughs and sneezes in tissues – Follow: “Catch it, Bin it, Kill it” and to avoid touching face, eyes, nose or mouth with unclean hands. Posters are displayed around the workplace.To help reduce the spread of coronavirus (COVID-19), during the building specific induction, individuals are reminded of the public health advice:<https://www.gov.uk/government/publications/coronavirus-outbreak-faqs-what-you-can-and-cant-do/coronavirus-outbreak-faqs-what-you-can-and-cant-do>A review of the cleaning regime for the building/area to ensure controls are in place to keep surfaces clean and free of contamination, cleaning products and disposable cloths have been made available to all occupants and everyone has been briefed on the importance of keeping surfaces and work equipment clean during the building induction process. Reminders will be given during all virtual group and School meetings. Entry/exits points in place for personnel working in high-risk areas, such as wet labs and analytical laboratories designated. Alternatives to touch-based security devices such as keypads provided.There is limited or restricted use of high-touch items and equipment, for example, printers or whiteboards. Sharing of equipment is restricted where possible (additional equipment/hand tools may need to be purchased), and cleaned / disinfected before and after use. Shared equipment is identified in individual lab risk assessments. Objects and surfaces that are touched regularly are cleaned frequently (i.e. door handles and hand sanitiser units). Keyboards and computer mice are either to be cleaned with anti-bacterial wipes before and after use. Adequate supplies for cleaning and provision of adequate disposal arrangements have been arranged.Internal doors that **are not** signed as fire doors (unless held open with a mechanical device) kept open whilst working (last person out shuts the doors) to prevent multiple people using door handles. Use of hot desks and spaces avoided and, where not possible e.g. training facilities, workstations are cleaned between different occupants including shared equipment.There is clear desk policy in place to reduce the amount of personal items on desks and work benches to be practiced when the space is in use or not in use.There are cleaning procedures for goods and merchandise entering the site. Greater handwashing and handwashing facilities have been introduced for workers handling goods and merchandise and hand sanitiser provided where this is not practical. Non-business deliveries stopped, for example, personal deliveries to workers.Everyone is encouraged to keep personal items clean; including washing spectacles with soap and water, clean phones, keyboards and shared machinery handles etc before after and during work. Staff have been encouraged to bring their own food and kitchen utensils including mugs/cups, cutlery etc.More storage for workers provided for clothes and bags (lockers) and staff encouraged to use them.Lab clothing and equipment such as goggles washed on-site rather than by individual staff members at home.COVID-19 cleaning products used have a current valid chemical risk assessment in place and are used in accordance with all prescribed risk controls and monitoring requirements. They are stored so that they are readily available to all users and are labelled according to the Globally Harmonised System of Classification and Labelling (GHS). (See location specific chemical risk assessments for cleaning products used within the area). All university staff are encouraged to avoid direct personal contact with others i.e. shaking hands etc. | 44444 | 22222 | 88888 |  |  |  |  |  |  |  |  |
| Organisational OrganisationalOrganisationalOrganisational | Exposure to Existing HazardsExposure to Existing HazardsExposure to Existing HazardsExposure to Existing Hazards | Staff/ studentsStaff/ studentsStaff/ studentsStaff/ students | Increased risk of harm due to controls included in existing risk assessments & safety arrangements affected by COVID-19 measuresIncreased risk of harm due to controls included in existing risk assessments & safety arrangements affected by COVID-19 measuresIncreased risk of harm due to controls included in existing risk assessments & safety arrangements affected by COVID-19 measuresIncreased risk of harm due to controls included in existing risk assessments & safety arrangements affected by COVID-19 measuresIncreased risk.  | All relevant pre-existing (non COVID) risk assessments including lone working assessments and procedures have been reviewed to take into account the impacts of social distancing and other COVID counter measures.PPE related risk assessments have been reviewed to ensure that PPE is provided on an individual basis. Usage is monitored to ensure suitable level of stock of certain PPE such as face masks etc. during this time due to global shortages. Individuals maintain their own equipment in a sterile condition. Storage has been reviewed to provide individual storage arrangements. The taking of PPE home is not permitted.Emergency Procedures reviewed and revised including:* **Communication**: people have been made aware that in an emergency, for example, an accident or chemical spill or fire, people do not have to stay 2m apart if it would be unsafe.
* **Fire procedures:** number and details of nominated fire warden(s) in place, fire muster point confirmed and PEEP (Personal Emergency Evacuation Plan) requirements defined including who will assist with their evacuation in an emergency. Required modifications to fire alarm practices and evacuation drills to cater for COVID-19 measures have been addressed; ensuring that the activity is still compliant with relevant building and fire codes.
* **First Aid:** First aid needs assessment reviewed to take into account any new Guidelines issued by the [University](https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx) or [HSE](https://www.hse.gov.uk/), and first aid information including the location of first aid kits and first aider contact information up to date.
* **Hygiene:** Washing facilities with soap/gel available (see Cleaning below). People involved in the provision of assistance to others have been informed to pay particular attention to sanitation measures immediately afterwards including washing hands.

Safety critical roles will remain in place to aid safe operation. In the event of safety critical roles not being available then a dynamic risk assessment shall be performed to ensure measures are introduced to mitigate risk (for example, another area within the building or campus could have a critical role such as first aider that could cover as a temporary solution).People have been made aware that in an emergency, for example, an accident or chemical spill or fire, people do not have to stay 2m apart if it would be unsafe.Business continuity and disaster recovery plans updated based on COVID-19 implications including Contingency plan in place for possible switch back to lockdown.Life-saving rules, will continue to be governed, enforced and communicated during COVID-19 in particular “speaking up” if they witness any unsafe behaviours, conditions or symptoms related to COVID-19. | 4444 | 2222 | 8888 |  |  |  |  |  |  |  |  |
| Environmental | Inbound & Outbound Goods including Post | Staff / Students | Exposure to contact with an object that has been contaminated with COVID-19. | Logistics for the deliveries to the unit so that social distancing can be maintained at all times has been considered and include: * Unnecessary contact at delivery bay has been minimised e.g. designating a single member of each group to collect deliveries
* Methods to reduce frequency of deliveries in place - ordering larger quantities less often.
* Where possible all deliveries are stripped of all packaging (which is disposed of).
* Strict hand washing procedure in place after handling all deliveries.
* Where possible deliveries to remain isolated and untouched for a minimum of 48 hours.
 | 4 | 1 | 4 |  |  |  |  |  |  |  |  |
| Environmental | Virus transmission outside of the workplace | Staff/ Students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | On the outside / approach to the building there is signage to warn all prior to entering this building social distancing is in place (keep 2m apart).There is signage advising staff to wash their hands regularly and not to touch their face.There is one door for access and three doors for exiting; and restricted movement systems are inforce in the building. Access will be monitored at the local level by PI’s. Staff will be asked to wear a lanyard at all times designating them as having received authorisation to return to campus from the college.  | 4 | 1 | 4 |  | Controlled access and egress is monitored via the Gallagher access system (when available) to ensure it is followed. |  |  |  |  |  |  |
| Mechanical | Machinery & Equipment | Staff/ students | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Equipment and surfaces that are touched regularly will be frequently cleaned and disinfected before and after use. Sterilising chemicals and cloths are provided in the area to clean machines and equipment prior to the commencement of work and upon completion. If machines and equipment are shared, sterilising will be carried out between operations. | 4 | 2 | 8 |  |  |  |  |  |  |  |  |
| Environmental | Ventilation | Staff/ Students | Exposure to respiratory droplets carrying COVID-19. | Recirculation of unfiltered air within the workplace has been avoided or reduced as far as possible.All ventilation has been serviced as required. All filters have been changed as required.Building users are encouraged where possible to ensure windows are open. | 4 | 1 | 4 |  |  |  |  |  |  |  |  |
| ChemicalChemicalChemicalChemical | Chemical or Biological AgentsChemical or Biological AgentsChemical or Biological AgentsChemical or Biological Agents | Staff/ StudentsStaff/ StudentsStaff/ StudentsStaff/ Students | Exposure to corrosive materials, flammable liquids and vapours. Potential adverse reaction due to exposure to Biological agents. Potential adverse effects due to prolonged or repeated exposure to sensitisers, mutagens, carcinogens or nano-materials. Exposure to corrosive materials, flammable liquids and vapours. Potential adverse reaction due to exposure to Biological agents. Potential adverse effects due to prolonged or repeated exposure to sensitisers, mutagens, carcinogens or nano-materials.Exposure to corrosive materials, flammable liquids and vapours. Potential adverse reaction due to exposure to Biological agents. Potential adverse effects due to prolonged or repeated exposure to sensitisers, mutagens, carcinogens or nano-materials.  | COSHH assessments are completed before any hazardous substances are used. Task specific risk assessments have been reviewed in conjunction with COVID-19 social distancing requirements and have been confirmed as appropriate. A specific, approved risk assessment for biological agents has been carried out and reviewed. Staff/ students do not come into contact with any hazardous substances in welfare areas or in spaces set aside for the completion of administrative tasks. Staff/ students wear the correct PPE when dealing with any hazardous substances as per the COSHH assessment. This PPE is assessed in terms of suitability for the task at hand and is not to be taken home for any reason. Staff and students are responsible for ensuring that all PPE (i.e. laboratory coats, safety glasses) are kept in good condition and are cleaned regularly. When not in use, laboratory coats are to be kept in individual storage bags to prevent cross-contamination. All substances are identified and listed; including the amount stored. Substances which are no longer in use are disposed of via appropriate waste management channels (see <https://canvas.bham.ac.uk/courses/32859/files/8887048?module_item_id=1447887>) Flammable liquid storage is limited to 25L per storage unit in accordance with DSEAR regulations. All flammable materials must be stored within suitable flammable liquid rated cabinets when not in use. All hazardous substances are substituted, replaced or eliminated where possible through a) changing the process/ activity so the substance is no longer required/ generated or b) using the substance in a safer form (i.e. pellets rather than powder). All substances are stored in the correct COSHH rated storage cabinet according to specific hazards. All control measures, including working practices are checked regularly. Where revision of control measures is required, this is to be communicated to individuals/ groups via team meetings and e-mail communication; with follow up in School discussions as appropriate. Maintenance, examinations and tests are completed by competent individuals. If a visit from an external engineer is required, the Technical Manager is to be informed; and the engineer notified that a copy of theirhealth and safety policy/arrangements / or RAMS (risk assessment and method statement) regarding COVID-19 is required. LEV plant has an examination and test at least once every 14 months. Staff/ Students are required to regularly clean their assigned laboratory benches and fume cupboards and to disinfect their workstations before and after use; for which cleaning supplies are provided. In the event of a chemical or biological agent spillage, no staff member or student is to attempt clean-up unless they have received appropriate training on a prior date. This does not include minor splashes. Appropriate spill kit materials are provided to all laboratory areas. Checks are made for spillage of substances before use and lids are replaced correctly on containers which are not in use. Where spillages occur, these are to be cleaned up in accordance with MSDS and COSHH recommendations. This activity may require two trained individuals to work in close proximity; therefore additional PPE (e.g. face masks/ shields) is required. All staff/ students working with reportable substances are to provide documentation of exposure to Safety Services and Occupational Health. Approval of control measures proposed must be obtained before work is initiated. Health surveillance will be provided where necessary.  | 3333 | 2222 | 6666 |  |  |  |  |  |  |  |  |
| MechanicalMechanical | Manual Handling of Gas CylindersManual Handling of Gas Cylinders | Staff/ StudentsStaff/ Students | Compressed gases are stored at high pressure. Damage to the cylinder can result in an uncontrolled release of potentially harmful gas.  | Compressed gases in laboratories are secured to an immoveable object such as laboratory benches or brick walls in an upright position. Transfer of compressed gas cylinders is to be performed only by individuals who have completed the online training course (<https://canvas.bham.ac.uk/courses/42406>); working in assigned pairs. As this procedure requires two individuals working in close proximity, additional PPE (e.g. face masks/ shields) will be required. These face shields are supplied by the School and are available for collection from Haworth 214. Excess compressed gas cylinders are stored in the rear courtyard of the Haworth building; secured to an immoveable object in an upright position. Full cylinders are stored separately from empty cylinders. Cylinders are to be transported using a suitable trolley, via the goods lift. One member of the assigned pair is to travel separately to prevent over-crowding. All regulators are registered by the Technical Manager upon delivery and assigned a number. The date of delivery will be recorded. All regulators must be replaced every five years.  | 22 | 22 | 44 |  |  |  |  |  |  |  |  |
| EnvironmentalEnvironmental | RadiationRadiation | Staff/ StudentsStaff/ Students | Exposure to radiation through work with ionising and non-ionising radiation sources.Exposure to radiation through work with ionising and non-ionising radiation sources.  | All work with radiation sources and materials will be identified and supervised at all times in accordance with the University Ionising and Non-Ionising Radiation policies (see below)<https://intranet.birmingham.ac.uk/hr/wellbeing/worksafe/radiation/Radiation-Safety.aspx>Radiation specific risk assessments and local rules have been developed and all works have been approved by the University Radiation Safety Group. All usage of radioactive material will be reported via IsoStock (<https://intranet.birmingham.ac.uk/hr/documents/private/HSU/Policies/Standard-User-IsoStock-Software-Quick-Guide.pdf>)The school Radiation Protection Supervisor should be consulted before the implementation of any changes to working practices. The University Radiation Protection Advisor can also be contacted for advice. All staff/ students who regularly work with radiation sources must complete appropriate training.  | 33 | 11 | 33 |  |  |  |  |  |  |  |  |
| Environmental | Transport of Cryogenic Materials | Staff/ Students | Risk of cold burns and asphyxiation | The transfer of cryogenic liquids and solids must be completed by a minimum of two persons working in pre-determined pairs or groups. As this tasks involves multiple people working in close proximity, additional PPE (e.g. face shields/ masks) are required.  | 2 | 1 | 2 |  |  |  |  |  |  |  |  |
| OrganisationalOrganisational | Lone WorkingLone Working | Staff/ StudentsStaff/ Students | Lone workers are vulnerable to delayed response in the event of an accident. Lone workers are vulnerable to delayed response in the event of an accident. | Lone working is avoided wherever possible and is not permissible in high risk activities or areas such as laboratories. Reduced occupancy within the building may result in an increase in lone working. In such circumstances, regular contact (phone calls, email, Skype or in-person checks) is to be made with co-workers and/or line managers to confirm safety. An approved, task specific risk assessment is required in all cases where lone working is unavoidable. No activities which would normally involve two or more persons may be undertaken alone. Staff/ students must inform their supervisor/ line manager if they feel uncomfortable with any work that they have been tasked with in which another person is not in the immediate vicinity. Students are not permitted to work in laboratories with no other person present.  | 33 | 22 | 66 |  |  |  |  |  |  |  |  |

**Risk Assessment Guidance**

Risk Scoring System

The scoring system is provided as a tool to help structure thinking about assessments and to provide a framework for identifying which are the most serious risks and why.

|  | **Consequence / Severity score (severity levels) and examples of descriptors**  |
| --- | --- |
|  | **1**  | **2**  | **3**  | **4**  | **5**  |
| **Domains**  | **Negligible**  | **Minor**  | **Moderate**  | **Major**  | **Catastrophic**  |
| **Impact on the safety of staff, students or public (physical / psychological harm)**  | Minimal injury not requiring first aid or requiring no/minimal intervention or treatment. No time off work | Minor injury or illness, first aid treatment needed or requiring minor intervention.Requiring time off work for <3 days  | Moderate injury requiring professional intervention Requiring time off work for 4-14 days RIDDOR / MHRA / agency reportable incident  | Major injury leading to long-term incapacity/ disability (loss of limb)Requiring time off work for >14 days  | Incident leading to death Multiple permanent injuries or irreversible health effects |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Likelihood score**  | **1**  | **2**  | **3**  | **4**  | **5**  |
| **Frequency** | **Rare**  | **Unlikely**  | **Possible**  | **Likely**  | **Almost certain**  |
| **Broad descriptor**  | This will probably never happen/occur | Do not expect it to happen/occur but it is possible it may do so | Might happen or occur occasionally | Will probably happen/occur but it is not a persisting issue | Will undoubtedly happen/occur, possibly frequently |
| **Time-framed descriptor** | Not expected to occurfor years | Expected to occurat least annually | Expected to occur atleast monthly | Expected to occur at least weekly | Expected to occur at least daily |
| **Probability** Will it happen or not? | <0.1 per cent | 0.1–1 per cent | 1.1–10 per cent | 11–50 per cent | >50 per cent |

The overall ***level of risk*** is then calculated by multiplying the two scores together.

**Risk Level = Consequence / Severity x Likelihood (C x L)**

|  |  |
| --- | --- |
|  | **Likelihood**  |
| **Likelihood score**  | **1**  | **2**  | **3**  | **4**  | **5**  |
|  | **Rare**  | **Unlikely**  | **Possible**  | **Likely**  | **Almost certain**  |
| **5 Catastrophic**  | 5  | 10  | 15  | 20  | 25  |
| **4 Major**  | 4  | 8  | 12  | 16  | 20  |
| **3 Moderate**  | 3  | 6  | 9  | 12  | 15  |
| **2 Minor**  | 2  | 4  | 6  | 8  | 10  |
| **1 Negligible**  | 1  | 2  | 3  | 4  | 5  |

The Initial Risk Rating is the level of risk before control measures have been applied or with current control measures in place.

The Residual Risk is the level of risk after further control measures are put in place.