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| Date: (1)[insert date] Date of assessment or where applicable valid date range (maximum 1year) | Assessed by: (2)  [Insert your name]  [Insert your usual work area] | Checked / Validated\* by: (3)  [Insert supervisor name]  Have RA checked by your supervisor | Location: (4)  [From and to? Building and Lab/area numbers of source and destination] | Assessment ref no (5)  [insert your full name and date]\_FSE Transport of chemicals\_April22 | Review date: (6)  [insert date]  At least annually or prior to next transfer depending on activity |
| Task / premises: (7)  [Safety toolkits (The University of Manchester)](https://www.healthandsafety.manchester.ac.uk/toolkits/) including transport can be found at [Transport of novel substances (The University of Manchester)](https://www.healthandsafety.manchester.ac.uk/toolkits/chemicals/transport/)  Note: A separate specific RA is required for transporting liquid nitrogen or gases – seek advice from technical team or FSE safety team.  **When and how to use this template risk assessment (RA):-**  A: Moving and handling chemicals and/or research samples in the work area or within the same building e.g. lab/ high-risk area. When planning activities complete this RA and once approved by your supervisor/manager refer to it in any general/experimental RAs in place. Date (1) should be the start of your activities i.e. date you completed the assessment and must not exceed the expiry of other RAs e.g., date (1) would be a range 1/4/22 to 31/3/23 as most RAs have maximum validity of 1 year. If activities change e.g. hazardous chemicals/ larger amounts are introduced please review the RA and seek further approval.  B: Moving and handling chemicals and/or research samples for transport from a building to another FSE building:-   1. Routine transport can be assessed as above. This would cover taking research samples to FSE buildings for analysis etc. e.g. transfer of NMR tubes or GC vials from MECD to Chemistry to use analytical services. Note: RA guidance below must be followed every time items are transported between buildings. 2. Collections of chemical orders from FSE Stores that are taken to other FSE buildings may be treated as A or B above. For bulk, liquid and other larger orders please arrange delivery to the nearest FSE stores to which the items are destined to reduce travel distances required when items are collected. 3. Where deemed necessary by the department/Institute policy approval prior to the transportation of chemicals between buildings may be required for every transfer event. Check with your department/Institute technical team or safety office. | | | | | |

| Activity (8) | Hazard (9) | Who might be harmed and how (10) | Existing measures to control risk (11) | Risk rating (12) | Result (13) |
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| General advice and preparedness | Slips, trips and falls  Manual Handling  Exposure to chemicals  Vehicular traffic | Staff, students, and the general public who may be affected by a chemical spillage or physically injury after a slip, trip or fall caused by spillage or collision with the transported chemicals.  Transporter may suffer sprains or muscle damage through incorrect manual handling techniques, increased carrying distances and/or lifting too heavy a load.  Personal capabilities.  Transporter, other staff or students, members of the public may be injured as the result of a traffic collision. | Consider if transportation of chemicals/research samples can be avoided or minimised e.g. use chemicals from destination building stocks, order chemicals to closest FSE Stores location that the activities will be done in.  Only transfer chemicals/research samples during normal building opening hours (8am to 5pm) Monday to Friday.  Save Security’s contact details (0161 3069966) in mobile phones in case assistance is required.  Ensure lab colleagues (Buddy’s) or similar are made aware that the transfer is in progress and when the destination building is reached.  The route to be travelled will be checked immediately prior to transport and must be free from obstructions and slip, trip and fall hazards.  Follow the highway code when walking on/near public roads. E.g. Use pedestrian crossings and adhere to traffic lights.  Plan ahead and contact the technical teams in advance if use of a lift is required signage is placed in the lift to warn of a chemical transfer in progress and that persons must not use the lift at that time. The lift locking off procedure should be followed. If lift cannot be locked off a person will be at the destination point to receive the chemicals.  Spill kits are available in all FSE buildings. If assistance or more equipment is required to deal with on incident always leave one person with any spill to warn others and keep the public away. If the spill is on a road inform Security on 69966 who will assess if the road should be cordoned off during clean-up. Inform a FSE Institute / school safety advisor.  Assess any additional requirements for clean-up and obtain from local FSE buildings as a minimum wear lab coat or Tyvek suit, specified gloves and safety glasses. Water/other neutralisation or absorbent material may be needed to dilute/soak up contamination, depending on the substance, consult Safety Data Sheets. Seek line manager/safety office advice as required. | Low | A |
| First aid, Fire and emergency evacuation | Fire, smoke and injuries | Transporters and others in FSE buildings | First aid kits are available in all FSE buildings.  If first aid help is needed mid transport, call Security on 0161 3069966 otherwise use the triage first aid notice to contact a first aider.  Follow UoM fire evacuation procedures as described in FSE health and safety induction.  On arrival at the destination building In the event of a fire, or suspected fire, or fire evacuation is in progress do not enter the building until it is deemed safe by those dealing with the incident.  Take the samples/chemicals under transport with you and wait at the assembly point. | Low | A |
|  | Cut injuries due to broken glass | Transporter and others in the vicinity | FSE spill kits are checked regularly to ensure contents are present and available for use.  Use a dust pan and brush to collect broken glass. Do not pick up broken glass with hands. If not possible wear cut resistant gloves. Trained First aiders must be available in both buildings. | Low | A |
| Transport of chemicals from building to building | Slips, trips and falls  Manual Handling  Exposure to chemicals  Vehicular traffic | Staff, students, and the general public who may be affected by a chemical spillage or physically injury after a slip, trip or fall caused by spillage or collision with the transported chemicals.  Transporter may suffer sprains or muscle damage through incorrect manual handling techniques, increased carrying distances and/or lifting too heavy a load. Personal capabilities.  Transporter, other staff or students, members of the public may be injured as the result of a traffic collision. | Persons involved in transportation must have completed manual handling techniques training.  Transport of chemicals must be carried out by more than one person i.e. in pairs or greater. An in-building buddy can be used to check in with to confirm the destination building has been reached safely.  A spill kit, appropriate to the chemical class, must be present during transit in case of container breakage. A list of transported chemicals must be transported with the chemicals. Incompatible materials must not be transported in the same packaging/carrier.  All chemicals are transported in suitable, robust, properly labelled containers (e.g., sealed boxes, Winchester carriers…) Large quantities must be moved on suitable trolleys. If trolley is used for transport then trolley must be visually and physically checked for any fault, loose wheels etc. before use. Trolley must be a suitable mode of transport for package and also for route to be taken across campus.  The route to be travelled will be checked immediately prior to transport and must be free from obstructions and slip, trip and fall hazards. | Medium | A |
| Packaging and transport of hazardous chemicals e.g. flammable, corrosive, CMRs | Chemical contact and/or exposure leading to burns, health issues and/or fire | Staff, students, and visitors to labs may be affected by a chemical spillage | This activity is only to be carried out by fully trained and competent personnel who are aware of all the associated risks of transporting hazardous substances (REF 1).  The flammable solvents potentially involved: [insert]  The corrosive chemicals potentially involved: [insert].  The hazardous chemicals potentially involved: [insert].  The CMRs potentially involved: [insert].  Non-hazardous or low risk chemicals (dilute reagents, salts etc.); all chemicals should be securely sealed. Liquids can be carried in a suitable purpose designed carrier e.g., Winchester carrier or lidded bucket. Planning should avoid busy areas of buildings and roads during transport.  Medium risk chemicals (corrosive substances, flammable solvents etc.); Chemicals must be sealed and double bagged or wrapped in cling film to prevent leakage or spillage and then placed in a suitable plastic container with lid. Containers must be kept upright during transfer and storage.  High risk chemicals (toxic/CMRs); Movement of these chemicals must only be carried out if no other alternative is possible and the transport of these chemicals must first be discussed with the department / Institute SSA to agree on the safest and most appropriate method. High risk chemicals must be separated according to hazard category and appropriately packed in UN official boxes ready for transport.  Research samples may be a combination of the above and must be assessed for transfer, labelled correctly and packed securely in secondary containment prior to transfer.  Purchased chemicals will be transported in the original packages (where possible) from building to building. All liquid chemicals will be carried using a robust lidded Winchester carriers. No more than 4 bottles should be carried by each transfer pair. Seek advice from department/Institute SSAs if bulk transfer is required.  Two or more people wearing specified PPE (eg. Lab coat, chemical resistant gloves one glove rule), safety glasses) will collect the items and transport them.  Once the chemicals arrived in the lab/area, these must be stored in designated cabinets and logged in LabCup. | Medium | A |
|  | Fragments of glass from broken containers | Cuts/abrasions to carriers or other users of the building.  Exposure to hazardous chemicals if container is broken. | All containers will be inspected for condition/containment issues before being unpacked. Glass containers should be handled carefully and once prepared for transport should be placed in a secure plastic or other double containment container.  In the event of glass breakage in the lab then the fragments must not be picked up by hand but rather swept up with dust pan and brush and disposed of as hazardous waste, the area can then be mopped with water and wiped clean. | Low | A |
| Chemicals on public highway | Transporter and others in the vicinity | Spill kits must be available, and their location known. Leave one person by spill to warn others and keep the public away. If spill is on road inform security on 69966 so that the road can be blocked off during the clean-up. Inform a safety advisor. Wear lab coat, gloves and safety glasses. Water/other neutralisation or absorbent material may be needed to dilute/soak up contamination, depending on the substance, consult Safety Data Sheets. Seek line manager/safety office advice as required. | Medium | A |
| Contact with hazardous substances on door handles and lift buttons etc. | All building users - direct exposure to hazardous chemicals, resulting in burns to skin and/or eyes, inhalation of toxic fumes or ingestion of corrosive/toxic substances. | Person who uses lift buttons and door handles must de-glove to open doors and press buttons etc. or follow the one glove rule as appropriate.  If contamination is observed always clean it off immediately using local assistance and resources. | Low | A |

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| **Action plan** (14) | | | | |
| **Ref No** | **Further action required** | **Action by whom** | **Action by when** | **Done** |
| Ref 1 | All personnel undertaking activity will be suitably trained and competent in both chemical risks and manual handling techniques. |  | Before and during transport |  |
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| **Declaration by researcher/student/academic/staff member/PI and lab manager**  **I confirm that I have read this risk assessment and that I understand the hazards and risks involved in this procedure and any associated COSHH assessments and will follow all of the safety procedures stated. In particular, I will also sign to confirm that I will wear the personal protective equipment as laid out in this risk assessment and any associated COSHH assessments and that I understand (i) why I have been asked to wear PPE, (ii) how the PPE provides protection and (iii) the limit of the effectiveness of PPE. I am also aware of what to do in the event that the PPE doesn’t fit or isn’t comfortable to wear.** | | | | |
| **Name (please print)** | **Role** | **Signed for abiding by risk assessment** | **Signed for wearing PPE** | **Date** |
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