|  |
| --- |
| SGUL |
| Control Of Substances Hazardous to Health Risk Assessment v.1.9 |
|  |

**Please do the following:**

1. Fill in the form electronically
2. Inform the SHE office if you are using any of the following:

* **have any group 2 or 3 biohazard ACDP agents**
* **have group 2, 3 or 4 organisms that are listed in the Specified Animal Pathogen Order**
* **have any microbiological organisms or toxins that may require secure storage – further information can be obtained from the SHE office**

1. Store on secure computer ( or shared drive)
2. File a hardcopy ( with USER SIGNATURES) in a folder in the lab
3. Review every 3 years or if protocol changes. Or in the event of an accident. or legislative change

**Title of Method:**

*Insert Method Title Here*

**Date Assessed:**

*Assessment Date*.

**PI/ Line manager Signature:**

**Name and Signatures of those covered by this assessment:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Student / Staff | Signature | Date that you start using the procedure |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

|  |
| --- |
| **Implementation and Communication of the COSHH**  **Assessment**  Name of Assessor: *Enter Name Here*.  Signature of Assessor:  Who is responsible for communicating this assessment to other staff: *Enter Name Here*.  Signature of person responsible for communicating this assessment to other staff: |

|  |
| --- |
| **Review of COSHH Assessment**  Review date of assessment:  Date review of assessment carried out:  Name of COSHH assessment reviewer:  Signature of COSHH assessment reviewer:  The SHE office recommend that a COSHH form/risk assessment should be reviewed annually or at the most every 3 years. The decision about when to review, is dependent on the hazardous nature of the work or a change of substance / working practice during the procedure.  For the approved HSE code of practice and guidance for COSHH please see the following link:  <http://www.hse.gov.uk/pubns/priced/l5.pdf> |

**Brief Description of Method:**

*Insert Method Description Here*

**Individuals who might be at risk:**

*Insert List of at Risk Individuals Here*

**Summary Evaluation:**

**Users should delete relevant sections from the document if the answer is No in the summary evaluation.**

**All other sections should be completed. Page 1 & 2 must accompany COSHH at all times**

**Does the method involve? Must complete section number**

Human Pathogens Yes  No 3, 17

Animal Pathogens Yes  No 4, 17

Blood work Yes  No 5, 17

Cell lines – animal or human Yes  No 6, 17

Toxic or Venom hazard Yes  No 7, 17

Pharmacologically active agent Yes  No 8, 17

Plant hazard Yes  No 9, 17

Human Tissue Yes  No 10, 17

Chemicals Yes  No 11, 12, 18

Chemicals - solvents Yes  No 12, 13, 18

Toxic gases Yes  No 11, 12, 18

Further Considerations/Clarifications Yes  No 19



**Control of Substances Hazardous to Health Risk Assessment form**

|  |
| --- |
| **Name of Risk Assessor (please give full title):** *Enter Name Here*.  **Role of Risk Assessor:** *Enter Role Here*. |
| **Where will the work be carried out?**  **Institute:** *Select Institute From Drop Down*  **Room Number:** *Enter Room Number Here*.  **Location:** *Enter Location Here*.  **Research Group/PI:** *Enter Research Group/PI Here*. |
| **Section 1 Describe the Task**      Describe in moderate detail what the work will involve, and any specialised equipment that will be used:  Start from the beginning of the procedure. Working through, consider the use of equipment, facilities, as well as chemicals. **Use blue font colour.**  Step 1:  Step 2:  Step 3: etc. |

|  |
| --- |
| **Section 2 Determine the hazards and the risks that the task**  **poses**  *(For information on this section refer to Part 2 of the COSHH Guidance*).  Further information or assistance can be obtained from the Safety, Health and environment office on x0637 or e-mail [COSHH Query](mailto:csandifo@sgul.ac.uk?subject=COSHH%20Query)  **Look at the risks involved in the procedure you are undertaking**.  Aim is to determine the level of risk posed to the individual undertaking the work or others working nearby.  (E.g., use of hazardous organisms and chemicals and their appropriate handling/disposal)  **Use blue font colour.**   **Please include** [**CAS numbers**](http://www.commonchemistry.org/) **if appropriate**  Step 1:  Step 2:  Step 3: etc. |

|  |
| --- |
| ***Section 3 - Biological Hazard Information***  **Organism name:**  *Insert Organism Name Here*  **Infection caused:**  *Insert Infection Caused Here*  **Source:** *Insert Source Here*  e.g. blood, saliva or culture collection  **Biohazard grouping: \_\_\_\_\_**  Bacteria  Virus  In vivo work  Fungi  Generate Aerosols  Parasite  High Titres  **Route of Potential Exposure(s):**  (Inhalation, skin, eyes, ingestion or needlestick)  *Insert Route Here*    ***Human Pathogens*** infectious agents including Viruses, Bacteria, Parasites and Fungi  please use appendix 1 to add extra organisms into this section  **Please copy (ctrl c) and paste (ctrl v) the whole appendix 1 into the area above section 4**  **Organism name:** *Insert Organism Name Here*  **Infection caused:** *Insert Infection Caused Here*  **Source:** *Insert Source Here*  e.g. blood, saliva or culture collection  **Biohazard grouping: \_\_\_\_\_**  Virus  In vivo work  Bacteria  Fungi Generate Aerosols  Parasite  High Titres  **At Risk Groups** *Insert brief information here*  **Route of Potential Exposure(s):**  (Inhalation, skin, eyes, ingestion or needlestick)  *Insert Route Here*  **Organism name:** *Insert Organism Name Here*  **Infection caused:** *Insert Infection Caused Here*  **Source:** *Insert Source Here*  e.g. blood, saliva or culture collection  **Biohazard grouping: \_\_\_\_\_**  Virus  In vivo work  Bacteria  Fungi Generate Aerosols  Parasite  High Titres  **At Risk Groups** *Insert brief information here*  **Route of Potential Exposure(s):**  (Inhalation, skin, eyes, ingestion or needlestick)  *Insert Route Here* |

|  |
| --- |
| ***Section 4 - Biological Hazard Information***    ***Animal Pathogens*** please use appendix 2 to add extra organisms into this section  **Please copy (ctrl c) and paste (ctrl v) the whole appendix 2 into the area above section 5**  Will work be undertaken with organisms that are listed on Schedule 1 of the Specified Animal Pathogen Order ([SAPO](http://www.legislation.gov.uk/uksi/2008/944/schedule/1/made))  Yes  No  Organism name and the infection that it causes.  **Organism name:** *Insert Organism Name Here*  **Infection caused:** *Insert Infection Caused Here*  **Source:** *Insert Source Here*  e.g. blood, saliva or culture collection  **Biohazard grouping: \_\_\_\_\_**  Virus  Bacteria  Fungi  Risk to Humans  Parasite  **At Risk Groups** *Insert brief information here*  **Route of Potential Exposure(s):**  (Inhalation, skin, eyes, ingestion or needlestick)  *Insert Route Here*  **Organism name:** *Insert Organism Name Here*  **Infection caused:** *Insert Infection Caused Here*  **Source:** *Insert Source Here*  e.g. blood, saliva or culture collection  **Biohazard grouping: \_\_\_\_\_**  Virus  Bacteria  Fungi  Risk to Humans  Parasite  **At Risk Groups** *Insert brief information here*  **Route of Potential Exposure(s):**  (Inhalation, skin, eyes, ingestion or needlestick)  *Insert Route Here* |

|  |
| --- |
| ***Section 5 - Biological Hazard Information***    ***Blood Work***   1. Will unscreened blood be used? Yes  No   if no, proceed to question 5   1. Is it obtained from donors within the laboratory? Yes  No   If yes , Ethics approval **must** be sought from St Georges Research Ethics Committee   1. Has the individual lab donor recently had a full blood count? Yes  No 2. Is there a suitable area to bleed the donor? Yes  No 3. Will blood be obtained from the Blood Service? Yes  No |

|  |
| --- |
| ***Section 6 - Biological Hazard Information***    ***Cell Lines***   1. Will unscreened primary human cell lines be used? Yes  No   if yes, please list below:   1. Will primary cell lines be used? Yes  No   if yes, please list below:   1. Will secondary cell lines be used? Yes  No   if yes, please list below:   1. Could the cell lines possibly be of risk to humans? Yes  No 2. Will they be obtained as gifts from another laboratory? Yes  No   If yes, please state the name and address of the supplying laboratory  **Use blue font colour.**   1. Will the cells be obtained from a type collections source or a company   e.g. ATCC , ECACC Yes  No  If yes, please state the name and address of the supplying collection or company. **Use red font colour.**   1. Have the celIs been transformed or transfected with DNA / RNA? Yes  No   if yes, please describe.  Please give the name of the plasmid / virus, the method used and any other info. i.e. is the transfection stable or unstable:   1. Have the cells been fully characterised? Yes  No |

|  |
| --- |
| ***Section 7 - Biological Hazard Information***    ***Toxin or Venom Hazard Information***   1. Will Toxins or Venoms be used? Yes  No   if yes, please describe.  **Use blue font colour.**  Please give the name of the toxin / venom and its effects on humans: |

|  |
| --- |
| ***Section 8 - Biological Hazard Information***    ***Pharmacologically active agents Hazard Information***   1. Will pharmacologically active agents be used? Yes  No   if yes, please describe.  **Use blue font colour.**  Please give the name of the agent and its effects on humans: |

|  |
| --- |
| ***Section 9 - Biological Hazard Information***    ***Plant Hazard Information***   1. Will the plant pose a hazard to humans? Yes  No 2. Does the plant produce Toxins? Yes  No 3. Does the plant produce Allergens? Yes  No 4. Does the plant produce pharmacologically active agents? Yes  No   **If the answer is yes to any of the above questions please name the plant and describe the relevant effects.**  **Use blue font colour.** |

|  |
| --- |
| ***Section 10 - Biological Hazard Information***    ***Human Tissue/ Samples***   1. Will this work involve obtaining / use of human tissue? Yes  No 2. Will this work involve obtaining / use of human samples that contain cells? Yes  No 3. Has the HTA designated individual been informed about the tissue/samples? Yes  No 4. Are the tissue/samples stored under the HTA licence? Yes  No |

***Section 11 - Chemical Hazard Information***

**This section is designed for you to:**

* **consider all the chemicals you will use in your experimental method**
* **Consider the consequences of exposure to the chemicals.**
* **Be aware of the type of chemical hazard and put measures in place to avoid it.**

**Advice - Chemical segregation must be considered, with flammables not being stored next to oxidising agents or strong acids**

**[](https://portal.sgul.ac.uk/she/pdfs/1sgul-guidelines-storage-of-chemicals-in-the-laboratory-january-2018.pdf/index_html?ticket=ST-88863-TcLTrxMLbi6oNPnE7DFl-sso.sgul.ac.uk)**

**[](http://safetystoragesystems.co.uk/blog/10-sets-of-chemicals-which-should-never-be-stored-together/)**

**Further, information on the hazard(s) posed by the chemical(s) that may be used will be available from the Safety Data Sheet (SDS) supplied with the chemical at the time of purchase.**

**Workplace Exposure Limits** can be checked via [EH40/2005](http://www.hse.gov.uk/pubns/priced/eh40.pdf).

**Name the chemicals that are a hazard:**

please use appendix 3 to add extra chemicals into this section

**Please copy (ctrl c) and paste (ctrl v) the whole appendix 3 into the area above section 11**

**Name:** *Insert Name Here*

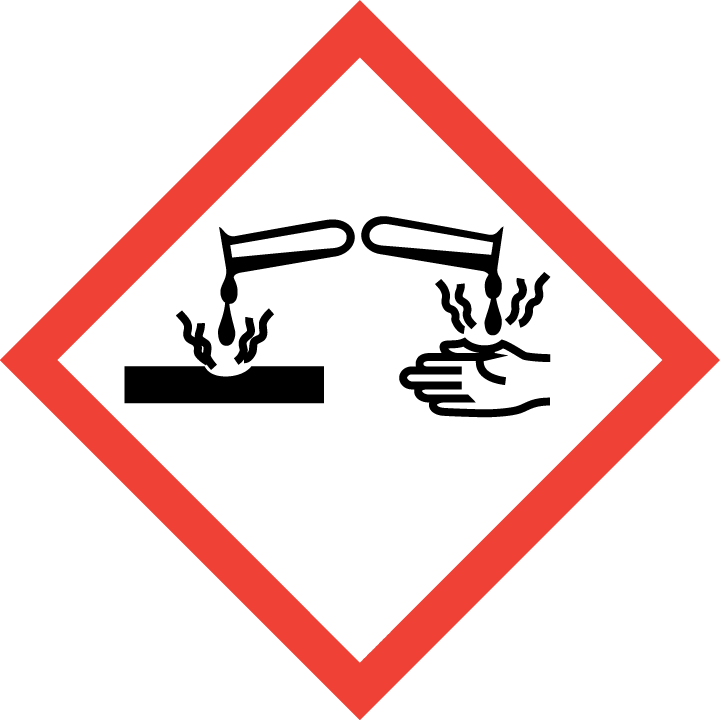
**Physical State:** *Choose State*

**W.E.L:** *Insert W.E.L Here*

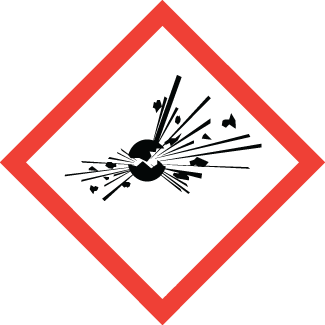
**At Risk Groups** *Insert brief information here*

**Chemical flashpoint: <50°C** Yes  No

**Hazard:**

Corrosive  Acute toxicity  Inhalation 

Flammable  Irritant  Environmental 

Oxidising  Compressed gas  Explosive 

**Route of exposure:**

*Insert Route Here*

**Name:** *Insert Name Here*

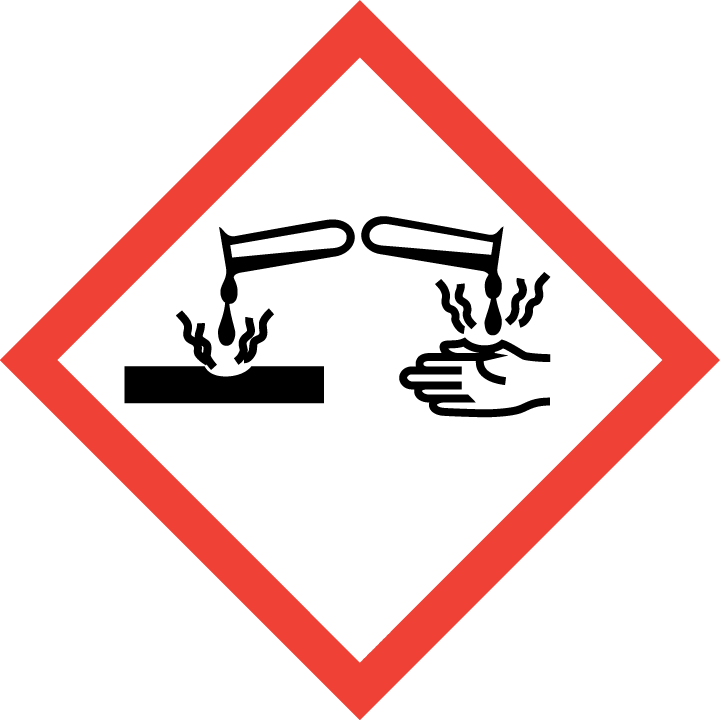
**Physical State:** *Choose State*

**W.E.L:** *Insert W.E.L Here*

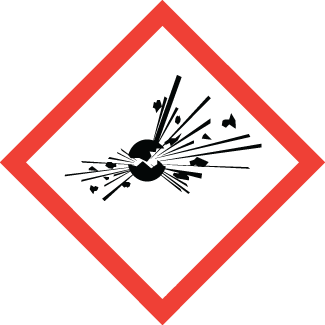
**At Risk Groups** *Insert brief information here*

**Chemical flashpoint: <50°C** Yes  No

**Hazard:**

Corrosive  Acute toxicity  Inhalation 

Flammable  Irritant  Environmental 

Oxidising  Compressed gas  Explosive 

**Route of exposure:**

*Insert Route Here*

**Name:** *Insert Name Here*

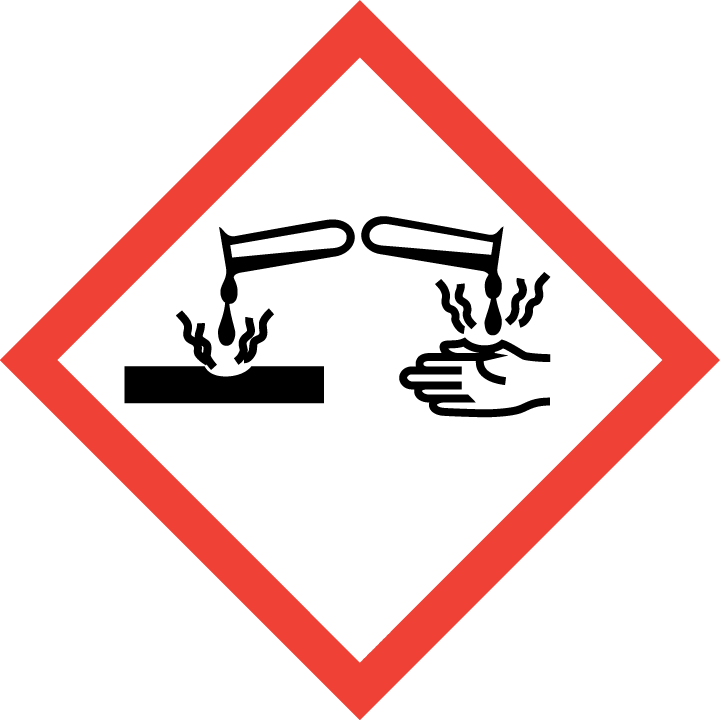
**Physical State:** *Choose State*

**W.E.L:** *Insert W.E.L Here*

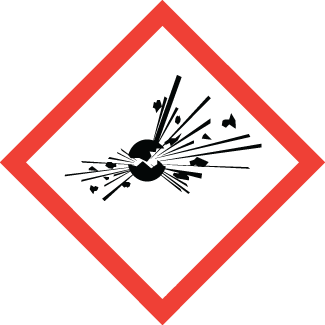
**At Risk Groups** *Insert brief information here*

**Chemical flashpoint: <50°C** Yes  No

**Hazard:**

Corrosive  Acute toxicity  Inhalation 

Flammable  Irritant  Environmental 

Oxidising  Compressed gas  Explosive 

**Route of exposure:**

*Insert Route Here*

**Name:** *Insert Name Here*

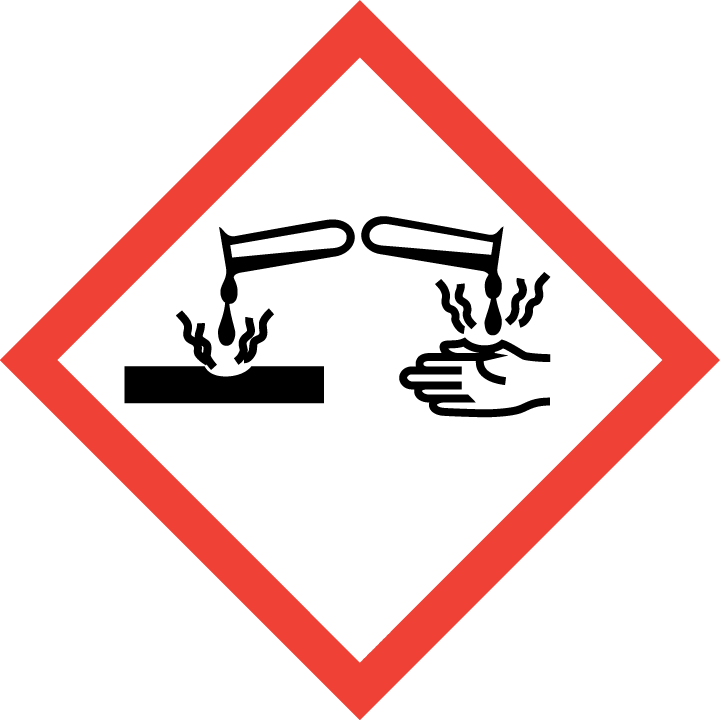
**Physical State:** *Choose State*

**W.E.L:** *Insert W.E.L Here*

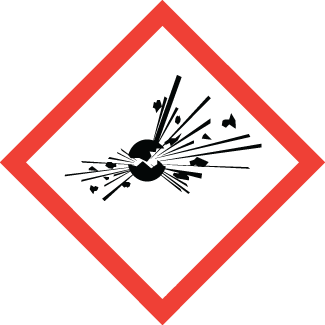
**At Risk Groups** *Insert brief information here*

**Chemical flashpoint: <50°C** Yes  No

**Hazard:**

Corrosive  Acute toxicity  Inhalation 

Flammable  Irritant  Environmental 

Oxidising  Compressed gas  Explosive 

**Route of exposure:**

*Insert Route Here*

|  |
| --- |
| ***Section 12 – Chemical Hazard Information***    **Chemical Workplace Exposure Limits (WEL)**  Do any of the the chemicals used have a work exposure limit assigned? This can be checked via [EH40/2005](http://www.hse.gov.uk/pubns/priced/eh40.pdf).  If WEL applies, then extra consideration must be given to the amounts / volumes of material individuals will be exposed to.  **Short-term exposure limits (STELs)** are set to help prevent short term effects e.g.eye irritation, which may occur following exposure for a few minutes.  **Long-term exposure limits (LTELs**) are set to help prevent some illnesses caused by exposure to hazardous substances in the workplace (occupational diseases) that may not appear until a long time after the first exposure.  **Use blue font colour.**  Please name the applicable chemicals below, indicating whether it is long-term / short-term exposure limit and describe what measures are being taken to lower the levels of exposure to a minimum:  **Chemical Flash Point Information**  If any of the chemicals used during procedure have a flash point below 50oC, then extra consideration must be given to the amounts of material used and the potential fire hazard, especially in labs where there are naked flames or equipment that is **not** spark free.  **Globally Harmonized System of Classification definitions**:  ≥ 50 oC Combustible (warning)  25 - 50 oC Flammable (warning)  Further, if the solvents used have low flash points (0-25ºC) the proximity of flames and heat souces must be considered!  0 - 25 oC Highly flammable (danger)  ≤ 0 oC Extremely flammable (danger)  **Use blue font colour.**  Please name the applicable chemicals below, and indicate what measures are being taken to avoid ignition: |

|  |
| --- |
| ***Section 13 Chemical Hazard Information***  **Storage of Solvents**  **It is recommened that no more than 20L of solvents are stored in labs and must be in an appropriate metal solvent cabinet!**   1. Will solvents or solvent containing solutions need to be stored at or below 4oC?   Yes  No   1. If yes, is the fridge / freezer spark-proof or spark free?   Yes  No    If your response to question 2 is no, then do not use this applicance, find an alternative appliance that is spark free.  **Use of open / naked flames / hot equipment**   1. Will open / naked flames be used during the protocol close to solvents or in the same room?.   Yes  No   1. Will hot equipment be used during the protocol close to solvents. Yes  No   If the answer to question 1 or 2 is yes, the please avoid and/or seek advice from Colin Sandiford (SHE office). |

|  |
| --- |
| ***14a- Personal Protective Equipment***  Tick if the below are required :  **Clothing**  Lab coat: Yes  No  Not Applicable  Howie coat: Yes  No  Not Applicable  Chemical resistant clothing: Yes  No  Not Applicable |

|  |
| --- |
| **14b-Respiratory Protection**   1. Respiratory Protection required? Yes  No   if no, move on to hand protection section.   1. Respiratory Protection using chemical filters required? Yes  No 2. Powered Respiratory Protection required? Yes  No 3. If 2 or 3 apply, has the individual been face fitted for equipment and trained in its use?   Yes  No  If answer yes, please describe below: **Use blue font colour.**  please specify: |

|  |
| --- |
| **14c -Hand Protection**   1. Gloves required? Yes  No 2. Special chemical resistant gloves required?  Yes  No   If answer yes, please describe below: **Use blue font colour.**  please specify: |

|  |
| --- |
| **14d - Eye Protection**   1. Eye Protection required? Yes  No   If yes, answer questions 2 and 3.   1. Safety Glasses: Yes  No 2. Full face shield: Yes  No  Not Applicable |

|  |
| --- |
| **14e - Other Protection**  If any other protection is required, please give details here: **Use blue font colour.** |

|  |
| --- |
| ***Section 15 - Control Measures***  Use this section to describe any procedural control measures or precautions that are currently in place e.g. extraction, ventilation, training, or supervision. Include special measures for vulnerable groups, such as disabled people and pregnant workers.  **Use blue font colour.**  please specify: |

|  |
| --- |
| ***Section 16 -* Indicate the level of residual risk the task poses, after use of**  **Control Measures**  Explain the reason for your decision (Refer to part 3 of the guidance. Risk could be Low / Medium / High)    *Indicate the Level of Risk*  Where work presents a **medium** or **high** risk of harm, additional safety measures must be put in place.  . **Use blue font colour.**  If additional safety measures are taken, please state below:  please specify: |

|  |
| --- |
| ***Section 17 -Waste Disposal Procedures –Biological Hazard***  ***Biological***  What stream of waste will be used:    Autoclave Sharps Bin Cytotoxic Bin Pharmacy Yellow Bag Orange Bag Offensive  Waste  **Use blue font colour.**  Other? Please give brief description:  ***Spill / Emergency Procedures***  Have procedures been produced to deal with spills of biological agents during transfer of the organisms, during procedures and during transfer of waste material including power failure or equipment failure?  Yes  No  If yes please detail the procedure below or append it to this assessment  **Use blue font colour.**  Are biological spill kits /disinfectants readily available and do the workers know where they are located?  Yes  No  Have procedures been produced to deal with contamination by / or inhalation of biological agents during transfer of the organisms, during procedures and during transfer of waste material?  Yes  No  If yes please detail the procedure below or append it to this assessment  **Use blue font colour.**  Have procedures been produced to deal with entrance of biological agents into open wounds materializing during transfer of the organisms, during procedures and during transfer of waste material?  Yes  No  If yes please detail the procedure below or append it to this assessment  **Use blue font colour.** |

|  |
| --- |
| ***Section 18- Waste Disposal Procedures –Chemical Hazard***  ***Chemical – please describe the kind of waste generated***    Halogenated Non-halogenated Flammable Corrosive Oxidising Powder Solid  Liquid Waste Liquid Waste Liquid Liquid agent    Controlled Drug Drug Precursor  Other? Please give brief description: **Use blue font colour.**  ***Spill / Emergency Procedures***  Have procedures been produced to deal with spills of chemicals during procedures and during transfer of waste including power failure or equipment failure?  Yes  No  If yes please detail the procedure below or append it to this assessment  **Use blue font colour.**  Are chemical spill kits / spill granules readily available and do the workers know where they are located?  Yes  No  Have procedures been produced to deal with contamination by / or inhalation of chemicals during procedures and during transfer of waste?  Yes  No  If yes please detail the procedure below or append it to this assessment  **Use blue font colour.**  Have procedures been produced to deal with entrance of chemicals into open wounds during procedures and during transfer of waste?  Yes  No  If yes please detail the procedure below or append it to this assessment **Use blue font colour.** |