












| Chemical Agents Risk Assessment – Part 1 of 3  |  |   |  |
|--|--|---|--|
| Division: Acute Hospital   |  | Source of Risk: Risk Assessment   |  |
| HG/CHO/NAS/Function: RCSI Hospital Group   |  | Primary Impact Category: Harm to a Person / Compliance  |  |
| Hospital Site / Service: ABC Hospital  |  | Risk Type: Operational  |  |
| Dept/Service Site: Histology Laboratory  |  | Name of Risk Owner (BLOCKS): JOE BLACK – MEDICAL SCIENTIST  |  |
| Date of Assessment: 23/06/2023   |  | Signature of Risk Owner: Joe Black – Laboratory Technician  |  |
| Unique ID No: 1234   |  | Risk Co-Ordinator: N/A  |  |
| Objective being impacted: Compliance with OSH legislation & the maintenance of a safe & healthy work environment |  | <sup>1</sup> Risk Assessor(s): Joe Black / Joe Bloggs – Laboratory Technicians  |  |
| Chemical Agents Risk Assessment – Part 2 of 3  |  |   |  |
| Chemical Name (Concentration): Formalin 10% neutral buffered   |  | Chemical Process: Used to fix and process samples in Histology  |  |
| Number of Employees Exposed:   | Categories of employees likely to be exposed: (Tick)   | Duration and frequency of contact (Hr/day):   |  |
| 7 employees in contact with product at any one time.   | Nursing Staff <input type="checkbox"/> Medical Staff <input type="checkbox"/><br>Care Staff <input type="checkbox"/> Maintenance Staff <input type="checkbox"/><br>Housekeeping <input type="checkbox"/> Others(please specify):Laboratory Technicians | Daily exposure for up to one hour at a time maximum.  |  |
| Safety Data Sheet available: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                 |  | Location of SDS : Attached in department chemical drive   | Date of SDS: 28/03/2023  |
| Amount used and quantity stored  | Hazard and risk associated with chemical:  | Exposure route(s) (Tick):   | Dustiness or Volatility: High, Medium or Low                               |
| 1 x 5 litre drums in lab used weekly.<br><br>2 x 5 litres stored in lab store at any one time.                   | H302 & H332 Harmful if swallowed or inhaled.<br><br>H317 May cause an allergic skin irritation<br><br>H341 Suspected of causing genetic defects.<br><br>H350 May cause cancer  | Eyes <input checked="" type="checkbox"/><br>Skin <input checked="" type="checkbox"/><br>Ingestion <input checked="" type="checkbox"/><br>Inhalation <input checked="" type="checkbox"/> | No dust generated from this product.<br><br>Volatility – No data available |

<sup>1</sup> Risk Assessor required for OSH risks only

| Classification, Labelling and Packaging (CLP) Hazard Symbols  |   |   |  |   |   |   |   |   |   |
|---|---|---|--|---|---|---|---|---|---|
| CLP SYMBOLS   |  |  |  |  |  |  |  |  |  |
|   | Acute toxicity hazard   | Serious long term health hazard   | Health hazard  | Corrosion Hazard  | Environmental hazard  | Flammability hazard   | Oxidising Hazard  | Explosion Hazard  | Stored as gas under pressure  |
| Tick appropriate pictogram. Refer to section 2 of SDS   |   | X   | X  |   |   |   |   |   |   |
| Insert appropriate <b>signal word</b> i.e. <b>danger</b> or <b>warning</b> . Refer to section 2 of the SDS  |   |   |  |   |   |   |   |   |   |
| <p><b>Occupational Exposure Limit Value (OELV) If applicable insert airborne OELV: _____</b></p> <p>Refer to <a href="#">2021 Code of Practice for the Chemical Agents and Carcinogens Regulations</a>.</p> <p><b>OELV:</b> BOELV (Binding Occupational Exposure Limit Value) of 0.5ppm/0.62mg/m<sup>3</sup> 8 hr reference period for the use of formaldehyde in healthcare. However, where it is possible the lower OEL identified in the COP i.e. 0.3ppm/0.37mg/m<sup>3</sup> - 8 hr reference period and 0.6ppm/0.738 mg/m<sup>3</sup> - 15 minute reference period should not be exceeded.</p> |   |   |  |   |   |   |   |   |   |

### Chemical Agents Risk Assessment – Part 3 of 3

| <sup>2</sup> HAZARD & RISK DESCRIPTION  | EXISTING CONTROL MEASURES   | ACTIONS [ADDITIONAL CONTROLS] REQUIRED   | <sup>3</sup> ACTION OWNER        | DUE DATE |
|---|---|--|----------------------------------|----------|
| <p>Risk of ill health due to potential exposure to formalin to the Laboratory Technician Staff. The potential exposure route is via skin / eye / inhalation / ingestion while processing histology samples daily.</p> | <p><b>Storage:</b> stored away from sources of ignition and direct sunlight. Drums are stored in a chemical storage cabinet currently separate to incompatible products such as strong bases, strong acids and strong oxidisers as per SDS.</p> <p><b>Use:</b> use in accordance with the manufacturer’s instructions. Staff must adhere to the safety precautions as set out in the standard operating procedures for the fixation and processing of samples (SOP 001). Use chemicals in designated areas only and by trained staff. Students are supervised at all times in histology lab.</p> <p><b>Engineering Controls:</b> all specimens cut up tables have a down draft system, which is serviced annually and records maintained in the Lab Manager’s office.</p> <p>All heating, ventilation and air conditioning (HVAC) systems are on a preventative maintenance / validation schedule and records are maintained in Lab Manager’s office.</p> <p><b>Occupational Hygiene:</b> a comprehensive OCC Hygiene Programmes is in place within the lab. Results are reviewed carefully to ensure there are no OEL exceedance. Last monitored in September 2022, report results have been communicated to staff in the Health &amp; Safety Meeting of October 2022, minutes available. Any recommendations implemented.</p> | <p>Continuous monitoring and review of all existing controls. Implementation and supervision of all procedures by all staff.</p> | <p>Joe Black / All Employees</p> |          |

<sup>2</sup> Where the risk being assessed relates to an OSH risk please ensure the HAZARD and associated risk are recorded. Other risk assessments require a risk description only.

<sup>3</sup> Person responsible for the action.



|  |   |  |  |  |
|--|---|--|--|--|
|  | <p>Future monitoring planned for September 2023 unless work practices change.</p> <p><b>PPE:</b> Based on OCC hygiene results the following PPE is mandated for use. Gloves, chemical goggles or safety glasses, chemical resistant apron provided to staff.</p> <p><b>Waste:</b> All waste containers / materials labelled and placed in the store room for collection by licensed chemical disposal company in accordance with the transportation of Dangerous Goods requirements.</p> <p><b>Spill Procedure:</b> In the event of a spillage safety glasses, protective clothing, gloves, a combined gas/dust mask with filter type A/P3 to be worn. Ventilate the area, spillage kit to be used. Spillage procedure to be implemented. Spill kit located in lab reception. Employees trained in its use. All spillages recorded on incident reporting form by Lab Manager. Investigation completed by Lab Manager and staff. In the event of a fire follow local procedures and training.</p> <p><b>First Aid:</b><br/><u>Skin Contact</u> – wash with plenty of liquid soap and water. If skin irritation or rash occurs get medical advice / attention.<br/><u>Eye Contact</u> – rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing refer to ED Dept for review.<br/><u>Ingestion</u> – Rinse mouth. Do not induce vomiting. Ref to ED Dept for review.<br/><u>Inhalation</u> – if safe remove the staff member from the area and allow the staff member to breathe fresh air and to rest.</p> |  |  |  |
|--|---|--|--|--|



|  |  |  |  |  |
|--|--|--|--|--|
|  | <p>Following an incident/accident all staff to be sent to Emergency Dept with a copy of Formalin SDS for medical review.</p> <p><b>Hygiene Measures:</b> to reduce potential exposure wash hands with liquid soap &amp; water before eating, drinking and when leaving work.</p> <p><b>Health Surveillance:</b> The Occupational Health Team / Safety Professional have viewed the Occ Hygiene results and the risk assessment and have determined that Health Surveillance is not required at this time. Should a staff member suffer any symptoms which is suspected to be the result of exposure to Formalin then a referral to the local Occ Health Dept will be made by the Lab Manager.</p> <p><b>Training:</b> all staff have completed chemical safety module of HSeLand. Records maintained by the Lab Manager. Tailored training on the specific chemicals used in the lab has been provided, records maintained by Lab Manager.</p> |  |  |  |
|--|--|--|--|--|

| <sup>4</sup> Inherent Risk |              |                              | <sup>5</sup> Residual Risk |              |                              | <sup>6</sup> Target Risk |              |                              | Risk Status                         |                          |                          |
|----------------------------|--------------|------------------------------|----------------------------|--------------|------------------------------|--------------------------|--------------|------------------------------|-------------------------------------|--------------------------|--------------------------|
| Likelihood [1-5]           | Impact [1-5] | Rating [Likelihood x Impact] | Likelihood [1-5]           | Impact [1-5] | Rating [Likelihood x Impact] | Likelihood [1-5]         | Impact [1-5] | Rating [Likelihood x Impact] | Open                                | Monitor                  | Close                    |
| N/A                        | N/A          | N/A                          | 2 (Unlikely)               | 2 (Minor)    | 4 (Low)                      | 2 (Unlikely)             | 2 (Minor)    | 4 (Low)                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

<sup>4</sup> Rating **before** consideration of existing controls

<sup>5</sup> Rating **after** consideration of existing controls

<sup>6</sup> Desired rating **after** actions