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**SSERC Risk Assessment** (revised version March 2018)

(based on HSE’s INDG 163 ‘Risk assessment - A brief guide to controlling risks in the workplace’)

2 Pitreavie Court, South Pitreavie Business Park, Dunfermline KY11 8UU

tel : 01383 626070 e-mail : [enquiries@sserc.org.uk](mailto:enquiries@sserc.org.uk) web : [www.sserc.org.uk](http://www.sserc.org.uk)

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| Activity assessed | Iodine Clock |
| *Date of assessment* | 7th July 2022 |
| *Date of review (****Step 5****)* |  |
| *School* |  |
| *Department* |  |

| Step 1 | Step 2 | Step 3 | Step 4 | | |
| --- | --- | --- | --- | --- | --- |
| *List Significant hazards here:* | *Who might be harmed and how?* | *What are you already doing?*  *What further action is needed?* | *Actions* | | |
| *by whom?* | *Due date* | *Done* |
| Sulphuric acid is corrosive  0.1 mol l-1 sulphuric acid is of no significant hazard | Technician by splashing while preparing 0.1M solution. | Wear face shield, nitrile gloves and pvc apron. |  |  |  |
| Sodium hydrogen sulphite is corrosive to eyes  0.2 mol l-1 sodium hydrogen sulphite solution is of no significant hazard | Technician by splashing preparing solution. | Wear goggles (BS EN166 3) (and perhaps gloves. |  |  |  |
| Iodic acid is corrosive and oxidising.  0.038 mol l-1 iodic acid is of no significant hazard. | Technician preparing solutions by spillage | Avoid raising dust. Wear goggles (BS EN166 3) and gloves. |  |  |  |
| Starch solution is of no significant hazard |  |  |  |  |  |

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| **Description of activity:**  Flasks are prepared of known amounts of water with some starch solution. A small amount of sodium hydrogen sulphite solution is added and then the iodic acid. The time taken for the solution to go blue is recorded.  The class results are plotted and the class prepares a series of flasks with volumes of water designed to change colour in time to the cannons in the final stages of the 1812 Overture. |

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| **Additional comments:** |