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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’)

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| Activity assessed | The Effect of Temperature Change on Reaction rate |
| *Date of assessment* | 7th December 2021 |
| *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* |
| Ethanedioic (oxalic) acid is harmful if ingested or in contact with the skin. | Technicians when preparing dilute solutions. | Normal lab hygiene should be sufficient. Consider gloves |  |  |  |
| 0.20 mol l-1 ethanedioic (oxalic) acid is on no significant hazard. |  |  |  |  |  |
| Sulphuric acid is an oxidiser and highly corrosive to skin and eyes | Technicians by splashing when preparing solutions. | Wear a face shield or goggles (EN166 3) and gloves. |  |  |  |
| 1 mol l-1 sulphuric acid is a skin/eye irritant. | Pupils/teacher by splashes when carrying out the experiment. | Wear eye protection. Consider gloves in case of sensitive skin. |  |  |  |
| Potassium manganate VII is an oxidiser and is harmful if ingested. | Technicians when preparing dilute solutions. | Keep away from combustible material. Normal lab hygiene should be sufficient. Consider gloves. |  |  |  |
| 0.02 mol l-1 potassium manganate VII is of no significant hazard |  |  |  |  |  |
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| **Description of activity:**  Dilute acid and the manganate VII solution are added to a series of beakers.  The solutions are heated to different temperatures  Ethanedioic (oxalic) acid is then added and the time taken for then purple colour of the manganate VII to disappear completely is recorded. |

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| **Additional comments:**  Disposal – the solution should be roughly neutralised with sodium hydroxide (or carbonate) and then can be washed to waste with plenty of cold running water. |