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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 | Int1 PPA1-2 - Effect of Concentration Changes on Reaction Speed |
| *Date of assessment* | 8th 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* |
| Magnesium ribbon is flammable | Pupils by burning | Keep away from sources of ignition |  |  |  |
| Sulphuric acid is highly corrosive to skin and eyes and an oxidiser | Technician while preparing solutions | Wear goggles (BS EN166 3) or a face shield and gloves |  |  |  |
| 2 mol l-1 sulphuric acid is corrosive to skin and eyes | Pupil by splashes while carrying out experiment | Wear goggles (BS EN166 3) |  |  |  |
| The reaction produces an aerosol of sulphuric acid which is irritating to eyes and lungs | Pupils by inhalation carrying out the experiment. | Work in a well-ventilated lab. Tell pupils not to sniff the test tubes. Loosely plug the tubes with cotton wool / mineral wool to trap the aerosol. |  |  |  |
| Hydrogen, produced in the reaction is highly flammable. | Pupils by burning | The amount of hydrogen produced is small. Even if it is ignited, there will only be a brief ‘pop’ Keep away from sources of ignition. |  |  |  |

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| **Description of activity:**  Pieces of magnesium ribbon are put into samples of sulphuric acid at different temperatures and the time taken for them to completely react is recorded. |

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| **Additional comments:** |