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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 | Burning Phosphorus in Air |
| *Date of assessment* | June 2024 |
| *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* |
| Red phosphorus is a flammable solid | Teacher, learners or technicians by fire or fumes from burning | Keep away from sources of ignition.  It is not highly flammable so accidental fire is unlikely. |  |  |  |
| The fumes from burning phosphorus (mainly phosphorus pentoxide) are highly corrosive | Teacher, learners or technicians by inhalation of fumes from burning | Work in a fume cupboard.  Wear eye protection. |  |  |  |
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| **Description of activity:**  Red phosphorus is ignited in a bottle top with a cut-down plastic bottle over the top.  The burning phosphorus reacts with and removes the oxygen and so the water level rises due to the difference in atmospheric pressure.  This allows us to calculate the percentage of oxygen in the air. |

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| **Additional comments:** |