# SSERC logo

**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 | Ostwald process - Microscale |
| *Date of assessment* | 30th June 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* |
| Hydrogen gas is highly flammable and can be explosive in mixtures with air. | Technician/teacher while filling syringe with gas. | Wear eye protection and take care. |  |  | |  | |
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| **Description of activity:**  A 60 cm3 syringe is filled with a mixture of 15 cm3 Nitrogen and 45cm3 Hydrogen.  Some steel wool is placed in a length of borosilicate tubing and heated.  Once hot, the gas mixture is passed over the iron and bubbled through a dilute solution of universal indicator. This should go blue to show an alkaline gas (NH3) has been produced. |
| **Additional comments:**  If Nitrogen is generated chemically – see appropriate risk assessment. |