# 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 | pH testing |
| *Date of assessment* | December 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* |
| Boric acid is a reproductive toxin, citric acid is an irritant. Sodium hydroxide is corrosive (see above) disodium hydrogen phosphate and the resulting buffers are of no significant hazard. | Teacher/technician by inhaling dust or splashing solution. | Wear gloves and goggles (BS EN166 3) |  |  |  |
| Methyl orange and bromothymol blue, solid and solutions and the buffer solutions are of no significant hazard |  |  |  |  |  |
| Phenolphthalein is a carcinogen, mutagen and reproductive toxin.The solution is flammable | Teacher/technician by inhaling dust or splashing solution.Or by contact of solution with a source of ignition | Wear gloves and goggles (BS EN166 3). Avoid raising dust.Keep ethanol and solution away from any sources of ignition. |  |  |  |
| Universal indicator solution is flammable – if a commercial one is used. The one made in this experiment is of no significant hazard | Teacher/technician if solution contacts a source of ignition | KEEP solution away from any sources of ignition. |  |  |  |
| Plant extracts are unlikely to be of any significant hazard. If using an unknown plant, caution should be used. |  |  |  |  |  |

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| **Description of activity:**A range of solutions of varying pH is prepared by mixing 2 base buffers. These solutions can be then used for practicing the use of pH meters. Or they can be used to investigate the colour changes of a range of indicators.  |
| **Additional comments:** |