# 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’)

2 Pitreavie Court, South Pitreavie Business Park, Dunfermline KY11 8UU

tel : 01383 626070 e-mail : [enquiries@sserc.org.uk](mailto:enquiries@sserc.org.uk) web : [www.sserc.org.uk](http://www.sserc.org.uk)

# 

|  |  |
| --- | --- |
| Activity assessed | Lemons |
| *Date of assessment* | 30th June 2020 |
| *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* |
| Potassium permanganate is **harmful** if swallowed, a strong irritant to skin and eyes.  The dust is harmful to lungs.  It is also a powerful oxidising agent.  The dilute solution used in the experiment has no significant hazard. | Teacher/technician while making up solutions | Indirect vent goggles (BS EN 166 3) should be worn.  If solution is splashed on skin, wash off with copious amounts of water. Consider wearing gloves (as well as irritation, KMnO4 stains skin)  Avoid raising or inhaling dust.  Keep away from sources of combustion and combustible material |  |  | |  | |
| 2 mol l-1 sulphuric acid is corrosive and irritating to the skin | Teacher/technician by splashes while making up solutions | Gloves should be worn if making from concentrate.  Indirect vent goggles (BS EN 166 3) should be worn.  If solution is splashed on skin, wash off with copious amounts of water. |  |  | |  | |

|  |
| --- |
| **Description of activity:**  A dilute solution of acidified permanganate solution is decolourised by lemons/lemon juice. The time taken to clear allows a determination of the effect of concentration, number of pieces and temperature on the rate of reaction. |
| **Additional comments:** |