# 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 web : [www.sserc.org.uk](http://www.sserc.org.uk)

#

|  |  |
| --- | --- |
| Activity assessed | The Law of Similar Shapes |
| *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* |
| Sulphuric acid is corrosive | Technician, preparing dilute solution. | Wear gloves and goggles (BS EN166 3) |  |  |  |
| 2 mol l-1 sulphuric acid is corrosive | Demonstrator and audience by splashing | Avoid splashes. Wear goggles (BS EN166 3) |  |  |  |
| Sodium hydroxide is corrosive | Technician, by splashing preparing dilute solution. | Wear gloves and goggles (BS EN166 3) |  |  |  |
| 0.1M sodium hydroxide is an irritant | Demonstrator and audience by splashing | Avoid splashes. Wear eye protection as appropriate. |  |  |  |
| Phenolphthalein powder is a mutagen, carcinogen and reproductive toxin. | Technician, preparing solution. | Avoid raising dust. Wear gloves and eye protection. |  |  |  |
| Phenolphthalein solution is flammable possible other hazards but solely due to the solvent) | Technician, demonstrator and audience | Keep away from sources of ignition. |  |  |  |

|  |
| --- |
| **Description of activity:**Demonstration uses colourless phenolphthalein and ‘hidden’ sulphuric acid and sodium hydroxide to change the colour of a solution poured from one container to another. In this version, it is only coloured in a conical flask. |
| **Additional comments:** |