# 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)

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| Activity assessed | Ester formation – small scale |
| *Date of assessment* | 3rd January 2018 |
| *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* |
| Concentrated ethanoic acid is corrosive and produces lachrymatory fumes. | Pupils while carrying out experiment by spilling. | Wear goggles (EN 166 3) and consider gloves. Work in a well-ventilated laboratory. |  |  | |  | |
| Concentrated sulphuric acid is highly corrosive. | Pupils while carrying out experiment by spilling. | Wear goggles (EN 166 3) and consider gloves. Keep quantities to a minimum. |  |  | |  | |
| Ethanol is highly flammable | Pupils / teacher by fire | Keep away from any sources of ignition. |  |  | |  | |
| 3-methyl butanol is harmful if inhales and a respiratory irritant. It is also flammable. | Pupils / teacher by fire or inhalation of fumes | Keep away from any sources of ignition. Work in a well-ventilated laboratory. |  |  | |  | |

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| **Description of activity:**  Esters are formed in test tubes between ethanoic acid and two different alcohols: ethanol and 3-muthyl butanol to give two different esters that can be identified by smell. |
| **Additional comments:** |