# 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 | Golden Rain |
| *Date of assessment* | 3rd February 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* |
| Lead nitrate is harmful if swallowed or inhaled, corrosive to the eyes, a reproductive toxin and can cause long term damage to the CNS.  The 0.3% solution is (just) a reproductive toxin | Technician when making up the solution by spillage or inhalation.  Technician/demonstrator by spillage | Wear gloves and goggles (BS EN 166 3).  Avoid raising dust.  Wear gloves and eye protection |  |  | |  | |
| Potassium iodide is an eye irritant.  The 0.3% solution is of low hazard. | Technician preparing solution by splashing. | Avoid splashes where possible. Wear eye protection. |  |  | |  | |
| Lead iodide is harmful if swallowed or inhaled, a reproductive toxin and can cause long term damage to the CNS. | Demonstrator during the demonstration.  Technician when disposing of solution. | Avoid handling solution – wear gloves and eye protection. |  |  | |  | |

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| **Description of activity:**  Potassium iodide and lead nitrate solutions are mixed to produce yellow crystals of lead iodide.  The solution is warmed and the lead iodide dissolves.  The solution is then cooled and sparkling crystals of lead iodide appear, slowly sinking to the bottom, looking impressive if illuminated. |
| **Additional comments:**  Disposal – the lead iodide can be filtered off and stored for disposal. The filtrate will still contain some lead iodide so it should be mixed with sodium carbonate solution to precipitate the much less soluble lead carbonate which can, in turn, be filtered off and stored for disposal. The remaining filtrate can be washed to waste with plenty of cold running water. |