# 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 | Ion Migration |
| *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 and a reproductive toxin. It is also an oxidising agent. | Technician preparing solutions. | Avoid raising or inhaling dust.  Appropriate eye protection should be worn.  If solution is splashed on skin, wash off with copious amounts of water.  Keep away from combustible materials and sources of ignition. |  |  | |  | |

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| **Description of activity:**  Small amounts of solid lead nitrate and potassium iodide are placed at opposite sides of a petri dish with a layer of water in.  The ions diffuse across and layer of yellow lead iodide is produced where they meet. |
| **Additional comments:**  Lead compounds are environmental toxins. Solutions and precipitates must be kept for uplift.  This experiment is safer if carried out with compounds that are less environmentally harmful . . .though not as strikingly coloured. |