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**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 | Cation Tests |
| *Date of assessment* | October 2021 |
| *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* |
| Sodium hydroxide is corrosive | Technician preparing dilute solutions by splashes. | Wear nitrile gloves and goggles (BS EN166 3). |  |  |  |
| 0.4 mol l-1 sodium hydroxide is a skin/eye irritant | Teacher/pupils carrying out experiment by splashes. | Wear eye protection. |  |  |  |
| Concentrated (.880) ammonia is corrosive to skin, eyes and respiratory system and produces corrosive and toxic fumes | Technician preparing dilute solutions by splashes. | Work in a fume cupboard (or a well ventilated room if the quantities are small and exposure brief). Wear nitrile gloves and goggles (BS EN166 3). |  |  |  |
| 1.5 mol l-1 ammonia is a skin/eye irritant | Teacher/pupils carrying out experiment by splashes. | Wear eye protection. |  |  |  |
| Silver nitrate is corrosive to skin and eyes | Technician preparing solutions by splashes. | Wear goggles and nitrile gloves. |  |  |  |
| 0.1 mol l-1 silver nitrate is a skin, eye irritant. | Teacher/pupils carrying out experiment by splashes. | Wear eye protection. |  |  |  |
| Barium chloride is toxic (Cat 3) if ingested and harmful if inhaled. | Technician preparing solutions by splashes, spillage or inhaling dust. | Avoid raising dust. Wear eye protection. Wash off if spilled on skin. |  |  |  |
| Iron II sulphate is harmful if ingested and an eye and respiratory irritant | Technician preparing solutions by splashes, spillage or inhaling dust. | Avoid raising dust. Wear eye protection. |  |  |  |
| Concentrated sulphuric acid is highly corrosive and an oxidiser. | Teacher/pupils carrying out experiment by splashes.  (or technician decanting. | Wear goggles and nitrile gloves. Work with care. |  |  |  |
| 1 mol l-1 hydrochloric acid, 0.1 mol l-1 barium chloride and limewater are of no significant hazard |  |  |  |  |  |
| Solutions or solids being tested | There are too many possibilities to describe here. The use of these reagents should be risk-assessed before the experiment is carried out. | |  |  |  |

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| **Description of activity:**  Solutions on unknown anions are tested by the addition of various reagents to determine which one is present |

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| **Additional comments:**  **Disposal**: Any ammonia-containing solutions should be emptied into dilute hydrochloric acid to neutralize (and reduce the fumes) |