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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 | Complexometric determination of nickel (AH PPA) |
| *Date of assessment* | 26the Feb 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* |
| Hydrated nickel sulphate is harmful if swallowed or inhaled, an eye irritant, a skin sensitizer, a carcinogen, mutagen and reproductive toxin and causes organ damage on prolonged or repeated exposure | Pupil/teacher while carrying out experiment. | Wear eye protection and gloves. Avoid raising dust. |  |  |  |
| Ammonium chloride is harmful if swallowed and an eye irritant.  The solution is an irritant. | Technician while preparing the solution | Wear eye protection. |  |  |  |
| EDTA is a skin/eye/respiratory irritant and harmful if swallowed, inhaled or in contact with the skin.  The solution is of no significant hazard. | Technician while preparing solutions by splashing. | Avoid raising dust. Wear eye protection and consider wearing gloves. |  |  |  |
| Ammonia is corrosive to skin and eyes and releases corrosive and toxic fumes. | Pupil/teacher by splashes while carrying out experiment | Wear goggles (BS EN166 3) and gloves. Work in a well ventilated laboratory (or a fume cupboard if quantities are more than small) |  |  |  |
| Concentrated phosphoric acid is corrosive. | Technician while preparing dilute acid by splashes | Wear goggles (BS EN166 3) or a face shield and gloves. |  |  |  |
| Murexide may be a mutagen (Cat 2) and/or a skin/eye/respiratory irritant (Cat 2)  The mixture with sodium chloride and the solution are of low hazard. | Technician while grinding the powder with salt. | Avoid raising dust. Wear eye protection and consider gloves. |  |  |  |
| Nickel-EDTA complex – will probably have similar hazards to most other Nickel compounds. |  | The main hazard is likely to be by inhalation. Do not let it dry out and produce dust. Wear gloves and goggles. when handling |  |  |  |

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| **Description of activity:**  A solution of a nickel salt is prepared and titrated against EDTA with murexide as an indicator. |

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| **Additional comments:** |