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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 | Preparation of potassium trioxalatoferrate (AH PPA) |
| *Date of assessment* | 26th 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* |
| Ammonium iron II sulphate is a skin, eye and respiratory irritant. | Technician preparing solution by inhaling vapour. | Work in a well-ventilated laboratory. |  |  |  |
| Ethanedioic acid is harmful if swallowed or in contact with the skin.  The 10% solution is of no significant hazard |  |  |  |  |  |
| Potassium ethanedioate. acid is harmful if swallowed or in contact with the skin.  The 30% solution has the same hazards |  |  |  |  |  |
| Sulphuric acid is highly corrosive. | Technician while preparing the solution by splashes. | Wear goggles (BS EN166 3) or a face shield and gloves. |  |  |  |
| 2.0 molar sulphuric acid is also corrosive | Pupil/teacher while carrying out reaction by splashes | Wear goggles (BS EN166 3) |  |  |  |
| 30% (100 vol) Hydrogen peroxide is corrosive to skin and eyes | Technician by splashes preparing 20 vol solution | Wear goggles (BS EN166 3) and gloves. |  |  |  |
| 20 vol hydrogen peroxide is a skin/eye irritant. | Pupil/teacher by splashes during experiment | Wear eye protection. |  |  |  |
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| **Description of activity:**  Ammonium iron II sulphate is dissolved in sulphuric acid and heated with ethanedioic acid. Potassium oxalate and then hydrogen peroxide are added. Crystals are allowed to form as the solution cools. |

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| **Additional comments:** |