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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 Cyclohexene (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* |
| Phosphoric acid is corrosive | Pupil / teacher carrying out experiment by splashing. | Wear goggles (BS EN166 3) and gloves.  |  |  |  |
| Cyclohexanol is harmful if swallowed or inhaled and a skin/respiratory irritant | Pupil / teacher carrying out experiment by splashing or inhalation of fumes | Work in a well-ventilated laboratory. Wear eye protection. |  |  |  |
| Sodium chloride is of no significant hazard |  |  |  |  |  |
| Cyclohexene is extremely flammable, harmful if swallowed and toxic in contact with skin. | Pupil/teacher by fire or splashes during the experiment. | Keep away from sources of ignition. Work in a well-ventilated laboratory. Wear eye-protection and gloves. |  |  |  |
| anhydrous calcium chloride |  |  |  |  |  |
| Bromine vapour is very toxic by inhalation and the liquid causes severe burns to skin and eyes | Technicians preparing solution | Wear goggles 9BS EN166 3) and gloves and work in a fume cupboard. |  |  |  |
| Bromine water is a skin/eye irritant and may give off irritating fumes (depending on the concentration)  | Pupil / teacher carrying out experiment by splashing or inhalation of fumes | Work in a well-ventilated laboratory |  |  |  |

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| **Description of activity:**Cyclohexanol is heated and distilled with phosphoric acid. Impurities are separated with sodium chloride solution and the crude cyclohexene is distilled again. |

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| **Additional comments:** |