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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 | Distillation of Dye mixtures |
| *Date of assessment* | December 2024 |
| *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* |
| Ethanol, propanone and some other solvents are flammable | Learners, teacher and technicians by fire | Keep away from sources of ignition. Only carry out distillation using an indirect heat source such as a heating mantle, hotplate, water bath etc. |  |  |  |
| Adding antibump granules to already heated liquids can cause violent bubbling that ejects liquid from the apparatus. | Learners or teacher by splashes of hot liquid. | Learners should be reminded to put antibump granules in at the beginning.  If anyone forgets, the solution should be allowed to cool a little before adding them. |  |  |  |

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| **Description of activity:**  This experiment is a simple demonstration of distilaltion.  A dye solution is made, using a food dye, methylene blue or similar and it is distilled to demonstrate that the colour is left behind.   1. Using a simple distillation setup with a boiling tube and delivery tube 2. Using a Leibig condenser |

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| **Additional comments:** |