# SSERC logo

**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 | TLC of Spearmint oil |
| *Date of assessment* | 30th June 2020 |
| *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* |
| Ethyl ethanoate is flammable and an eye / respiratory irritant. | Technician (or teacher) preparing extraction solvent. | Wear eye protection. Work in a well-ventilated area or perhaps a fume cupboard. |  |  | |  | |
| Hexane is flammable, irritant an aspiration toxin and a reproductive toxin. | Technician (or teacher) preparing extraction solvent. | Wear eye protection (and perhaps gloves). Work in a well-ventilated area or fume cupboard. |  |  | |  | |
| Hexane:ethyl ethanoate solvent has the same properties as Hexane. | Pupil carrying out chromatography | Use as small an amount as possible. Work in a well-ventilated area. |  |  | |  | |
| Potassium manganate VII is an oxidizer and is harmful if swallowed. | Technician (or teacher) preparing developing solution. | Wear gloves and eye protection. Avoid raising dust. |  |  | |  | |
| Sodium carbonate is an irritant | Technician (or teacher) preparing developing solution. | Wear eye protection (and possibly gloves). Avoid raising dust. |  |  | |  | |
| Sodium hydroxide is corrosive | Technician (or teacher) preparing Hydroxide solution to add to developing solution. | Wear goggles (EN166 3) and gloves. Avoid splashes. |  |  | |  | |
| Permanganate dip is of no significant hazard |  |  |  |  | |  | |
| Spearmint oil is harmful if swallowed, a skin irritant and sensitiser | Pupil carrying out chromatography. Possibly Teacher / technician if oil is being decanted | As quantities are very small, no special requirements are needed for pupils. If decanting larger amounts, teacher / technician should wear gloves. |  |  | |  | |

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| **Description of activity:**  A small amount of solvent is placed in the bottom of the container and the TLC plate, previously spotted with spearmint oil is stood in it.  A lid is placed on top and it is then left to run.  The TLC plate is removed and dried (this happens very rapidly in air).  The plate is then developed by immersion in a permanganate dip solution – the spots appear yellow/brown against a purple background. |
| **Additional comments:** |