# 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 | Vitamin C drops |
| *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* |
| Iodine Solid is harmful | Technicians (and possibly teachers) while making up solution | See Hazardous Chemicals – Iodine  Wear indirect vent goggles & nitrile gloves |  |  | |  | |
| Electrical Juicer (if used) | Technicians (and possibly teachers) | Visual inspection of cables. Ensure PAT test date valid |  |  | |  | |
| Iodine Solution produces harmful fumes (though at a very low level in this case) | Technicians, Teachers and pupils | Use solutions in well-ventilated area. |  |  | |  | |

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| **Description of activity:**  Fruit juices are prepared. Small quantities of the filtered juices are then added to a few cm3 of dilute iodine /starch solution until the iodine solution goes colourless.  The concentration of vitamin C in the fruit juices is then determined by extrapolation from a calibration graph supplied. (It may be that the calibration graph is produced by pupils from standard solutions of ascorbic acid. This produces no extra hazard.) |
| **Additional comments:**  Only technician or teacher should use a juicer. Pupils can hand crush some fruits in a polythene bag. Filter juices using muslin as a filter. Prepare juices just prior to the activity and no more than an afternoon previous to using. If prepared in advance store in a fridge overnight and allow to come to room temperature before use.  Using as soon as prepared or after a short time eliminates the error in results which will arise from the degradation of the vitamin C with time and negates the possibility of bacterial contamination.  Flush unused juices away after the activity. |