# 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 | Oxidative rancidity |
| *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* |
| Hexane and cyclohexane are Flammable, skin and respiratory irritants and aspiration toxins | Technician/Teacher/Pupil preparing the β-carotene solution. | Wear eye protection and gloves and work in a fume cupboard. Keep away from any source of ignition.Once solution is made, keep in a stoppered container, removing stopper for as short a time as possible. |  |  |  |
| Copper sulphate is harmful if ingested, a skin/respiratory irritant and causes serious eye damage. The solution is of no significant hazard. | Technician preparing solution | Wear goggles (EN 166 3) |  |  |  |
| BHA is a skin/eye irritant and a probable Cat 2 carcinogen and Reproductive toxin.The solution is of no significant hazard. | Technician preparing solution | Avoid raising dust. Wear goggles (EN166 3) and gloves. |  |  |  |
| Other solutions are of no significant hazard |  |  |  |  |  |

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| **Description of activity:**Rendered pork fat is coloured with a solution of β-carotene in hexane/cyclohexane. The mixture is absorbed onto disc of filter paper which are exposed to various conditions and the rate of fading of the colour is used to monitor the oxidations. |
| **Additional comments:**You can’t use commercial lard for this because it has antioxidants added to it for preservation. Use the fat from cooking bacon or sausages or any other meat. |