# 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’)

2 Pitreavie Court, South Pitreavie Business Park, Dunfermline KY11 8UU

tel : 01383 626070 e-mail : [enquiries@sserc.org.uk](mailto:enquiries@sserc.org.uk) web : [www.sserc.org.uk](http://www.sserc.org.uk)

# 

|  |  |
| --- | --- |
| 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 |  |  |  |  | |  | |

|  |
| --- |
| **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. |