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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 | Making Artists’ Pigments |
| *Date of assessment* | November 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* |
| Cobalt chloride is a mutagen, carcinogen, reproductive toxin and a skin/respiratory sensitiser. The solution has the same properties | Technician, teacher or learner by inhalation or splashes. | Inhalation is extremely unlikely but avoid raising dust.Wear goggles (BS EN 16 63) and consider gloves. |  |  |  |
| Potassium hydrogen phosphate has no significant hazard. |  |  |  |  |  |
| Copper sulphate is harmful if swallowed and causes serious eye damage.The solution has the same properties | Technician, teacher and learners by splashes and contact with eyes | Avoid raising dust.Wear goggles (BS EN 16 63) and consider gloves. |  |  |  |
| Sodium carbonate is a sin/eye irritant.The solution has the same properties | Technician, teacher and learners by inhalation. | Avoid raising dust.Wear eye protection and gloves. |  |  |  |
| Potassium Hexacyanoferrate III is dangerous for environment. | Technician, teacher and learners by inhalation. | Avoid raising dust.Wear goggles (BS EN 16 63). |  |  |  |
| Iron(III) chloride is irritant. | Technician and teacher by inhalation. | Avoid raising dust.Wear goggles (BS EN 16 63) and gloves.If spilt on skin wash off with copious quantities of water. |  |  |  |

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| **Description of activity:**A selection of solutions is available for learners – as determined by the teacher. Having the solutions pre-prepared by the technicians reduces the risk but is not essential.The solutions are mixed and in some cases heated, before the precipitate is filtered off and dried to be used as a pigment.A method is given for the making of a tempera paint using egg yolk. As long as suitably laboratory hygiene such as handwashing, is observed, there is no significant risk in this part of the activity. |

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| **Additional comments:**DisposalDark Red – as long as there is no blue left in the filtrate, it can be roughly neutralised and washed to waste.Azurite/malachite – as above but no neutralisation is needed.Cobalt violet – the quantities are given so that the phosphate is in excess and there will be no cobalt ions in the filtrate. It can be washed to waste with plenty of water.Prussian blue – add excess iron solution to ensure all the hexacyanoferrate becomes Prussian blue. This can be washed to waste with plenty of water.Paint – any left over can go in the bin. |