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| **Title:** | **S209: An introduction to chemical biology** | | |
| **Name:** | Mason Wakley | **Date:** | 24/1/2022 |
| **College:** | Somerville College | **Year:** | **2** |

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| **Substances/ Equipment Used** | **Mass/**  **Volume** | **Hazards** | **Exposure Route** | **Control Measures** |
| 30% Bis-acrylamide/acrylamide |  | H301 Toxic if swallowed.  H312 + H332 Harmful in contact with skin or if inhaled.  H315 Causes skin irritation.  H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.  H340 May cause genetic defects. H350 May cause cancer.  H361f Suspected of damaging fertility. H372 Causes damage to organs (Peripheral nervous system) through prolonged or repeated exposure if swallowed. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Tris(hydroxymethyl)aminoethane |  | H315 Causes skin irritation.  H319 Causes serious eye irritation.  H335 May cause respiratory irritation. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Sodium dodecyl sulfate |  | H228 Flammable solid.  H302 + H332 Harmful if swallowed or if inhaled.  H315 Causes skin irritation.  H318 Causes serious eye damage.  H335 May cause respiratory irritation. H411 Toxic to aquatic life with long lasting effects. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Ammonium persulfate |  | H272 May intensify fire; oxidizer.  H302 Harmful if swallowed.  H315 Causes skin irritation.  H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.  H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  H335 May cause respiratory irritation. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Tetramethyl ethylene diamine |  | H225 Highly flammable liquid and vapor.  H301 + H331 Toxic if swallowed or if inhaled.  H314 Causes severe skin burns and eye damage. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Glycine |  | Not a hazardous substance | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Dithiothreitol |  | H302 Harmful if swallowed.  H412 Harmful to aquatic life with long lasting effects. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Perchloric acid |  | H271 May cause fire or explosion; strong oxidizer.  H290 May be corrosive to metals. H302 Harmful if swallowed.  H314 Causes severe skin burns and eye damage.  H373 May cause damage to organs (Thyroid) through prolonged or repeated exposure. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |
| Phosphoric acid |  | H290 May be corrosive to metals. H302 Harmful if swallowed.  H314 Causes severe skin burns and eye damage. | Absorption:  Eyes  Skin  Inhalation  Ingestion | In case of spill, consult a demonstrator, technician or senior member of staff  Safety spectacles  Lab coat  Gloves  Fumehood  Keep away from naked flames and sources of ignition  Heat using temperature-controlled water bath  Not to be used if pregnant  Do not store or use near water (store in oil)  Add dropwise to solution  Do not expose to air |

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| **Specific Safety or Risk Implication:** | **Y** | **If Yes, Prevention Measures:** |
| Fire or Explosion |  |  |
| Thermal Runaway |  |  |
| Gas Release |  |  |
| Malodorous Substances |  |  |
| Special measures: |  |  |

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| **Waste Disposal:** | |  | |
|  | Halogenated |  | Aqueous |
|  | Hydrocarbon |  | Named Waste |
|  | Contaminated solid waste |  | Silica/TLC |

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| **Approved By:** |  | **Date:** |  |