







Safe Work Procedure

| Process/Equipment: Hexane Distillation | | Location : Chemistry Department | |
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| Procedure Developed by : Ms M. Gresser and Dr J. Morgan | | Approved by : William Price (HOD) | Date : 20/05/2005 |
| Referenced UOW Guidelines, legislation, codes of practice, Australian Standards etc: | | UOW Working with hazardous substances guidelines (OHS114.2) UOW Laboratory safety guidelines (OHS048.2) OH&S Regulation 2001 Clause 62 (Fire and explosion) OH&S Regulation 2001 Clause 161-174 (Use of hazardous substances) AS2242.2 (1997) Laboratory safety – Chemical aspects AS2243.8 (2001) Laboratory safety – Fume cupboards | |
| Personal Protective Equipment Required: | | | |
|     | | | |
| Activity <i>(Steps in the process/task)</i> | Hazards Identified <i>(What could cause an injury)</i> | Risk Score <i>(How harmful is it)</i> | Controls <i>(What can be done to minimise the risk of injury)</i> |
| Still Preparation | Fire Skin irritation Harmful if inhaled | Low | Keep away from sources of ignition Use in a well ventilated area (fume cupboard) Check glassware is sealed and without cracks Check water hoses are connected Ensure addition of anti-bumping granules to prevent superheating PPE: safety footwear, gloves, eyewear, protective clothing |
| Distillation | Fire Explosion | Medium | Keep away from sources of ignition Use in a well ventilated area (fume cupboard) Once heating mantle in on check still regularly for signs of overheating Ensure solvent volume is greater than that of the collecting reservoir to prevent boiling dry and possible explosion PPE: safety footwear, gloves, eyewear, protective clothing |

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| Solvent Collection | Fire Skin irritation Harmful if inhaled | Medium | Keep away from sources of ignition Use in a well ventilated area (fume cupboard) Ensure the fume cupboard sash is down whilst collecting the solvent Take precautions not to overflow collection vessel PPE: safety footwear, gloves, eyewear, protective clothing |
| Turning Off Still | Fire Explosion | Medium | Keep away from sources of ignition Use in a well ventilated area (fume cupboard) Turn heating mantle off and allow to cool before water to condenser is turned off PPE: safety footwear, gloves, eyewear, protective clothing |
| Still Disposal | Fire Skin irritation Harmful if inhaled | Low | Keep away from sources of ignition Use in a well ventilated area (fume cupboard) Appropriately dispose of remaining hexane PPE: safety footwear, gloves, eyewear, protective clothing |