

# SAMPLE RISK ASSESSMENT (inc COSHH)



## Blood Iron – For demonstration/class activity

Specific

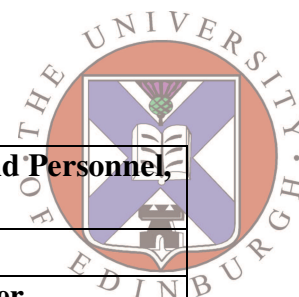
Generic

Please tick

Date: 10/01/07

Attach additional sheets if required at any section.

|   |   |            |
|---|---|------------|
| <b>Substances Involved and Hazards Identified: e.g. Biological*; Radioactive*; Toxic, Explosive, Inflammable, Carcinogenic</b>  |   |            |
| <b>Substance</b>  | <b>Hazard</b>   |            |
| Sodium Hydroxide solution   | Causes burns - corrosive  |            |
| Aluminium Foil  | None – check for allergies  |            |
| Hydrogen Gas  | Flammable – do not allow large quantities to accumulate. Can cause asphyxiation in large amounts. |            |
| <b>Equipment used &amp; Hazards Identified (Please Tick)</b>  |   |            |
| Apparatus<br>✓  | Cryogenic   | Electrical |
| <b>Scheme of Work/Procedure</b>   |   |            |
| <ol style="list-style-type: none"> <li>Aluminium foil is added to test tube about 3 cm full of sodium hydroxide solution. Gas is caught in test tube held above and “popped” with a glowing splint.</li> <li>Hydrogen is generated by electrolysis of water and bubbled through a small crystallising dish with water/soap/glycerine. The bubbles are lit with a splint to give a yellow flame.</li> <li>The specially designed apparatus is used to generate a (small amount!) hydrogen/oxygen mix which is bubbled through the mixture above. Lighting these bubbles gives a “crack” sound and no flame.</li> </ol> |   |            |
| Quantities released in all of these experiments are very small - less than 10 cm <sup>3</sup>   |   |            |



|  |                  |
|--|------------------|
| <b>Particular Control/Safety Measures to be Adopted: Both Engineering and Personnel,</b><br><b>e.g. Fume Cupboard, Gloves, Blast screen</b>  |                  |
| Lab Coat, safety glasses and marigold gloves worn by ALL in vicinity.  |                  |
| <b>EMERGENCY PROCEDURES (a) Spillage (b) Fire (c) Other</b><br>a) Wipe up and rinse affected area<br>b) In case of fire, extinguish with either powder, CO <sub>2</sub> or Foam extinguisher                 |                  |
| <b>First Aid Treatment</b><br>Wash affected part immediately with cold water. Seek medical aid if skin is reddened. If splashed in eye, irrigate with cold water and seek <b>immediate</b> medical attention |                  |
| <b>Waste Disposal Procedures</b><br>Wash down sink with plenty of water  |                  |
| <b>Information Sources</b><br>Material Safety Data Sheets  |                  |
| <b>Name of Assessor</b>  | <b>Signature</b> |