

Risk Assessment - Reversible & Irreversible Changes

Activity	Hazard	Precaution	Risk
Chocolate	contamination	Use sealed, wrapped bars	Very low
Egg	burns	Ensure egg has sufficient time to cool in advance of workshop	Very low
Bunsens	burns	Clear demonstration at start of activity covering <ul style="list-style-type: none"> • Air & gas controls • Lighting • Safety flame • Roaring flame • Half flame 	low
Heating chemicals	burns	<ul style="list-style-type: none"> • Clear demonstration of how to heat chemicals • Safety goggles • Close supervision during heating • Special instructions before heating wax, ice and copper • wooden "clothes peg" test-tube holders used • test-tubes in racks • heat-proof mats on desks 	
• zinc oxide	Non-hazardous		v.low
• copper sulphate	Harmful if swallowed.	Safety warning at start	low
	Can irritate sensitive skin	Pre-dispensed in test-tube so no direct contact	
• ammonium chloride	Possible reaction with potassium manganate (VII)	Pre-dispensed in separate test-tubes	low
• copper carbonate	<ul style="list-style-type: none"> • Harmful if swallowed • Irritant if inhaled 	Pre-dispensed in test-tubes stopper with ceramic wool	low
• copper metal	Non-hazardous		v.low
• wax	Flammable if over heated	<ul style="list-style-type: none"> • Clear instructions • Ensure students stop heating when melted • Stopper with ceramic wool 	low
• potassium manganate VII (potassium permanganate)	Oxidising agent	avoid contact with wax and ammonium chloride	low
	Harmful if swallowed	<ul style="list-style-type: none"> • Pre-dispensed in separate test-tubes • Stopper with ceramic wool 	
• ice	Scald hazard from steam	<ul style="list-style-type: none"> • Use boiling tubes • Clear instructions on. • Close supervision during experiment 	low
Ice Cream (if made)	Contamination	<ul style="list-style-type: none"> • Food grade materials stored in food grade conditions only to be used 	Very low
	Over freezing	<ul style="list-style-type: none"> • Ice cream made indirectly in metal bowl over liquid nitrogen • Ice cream beaten thoroughly whilst freezing and removed from coolant when sufficiently stiff. • Ice cream portions inspected as served • Plastic spoons used as these will not penetrate hard frozen ice cream 	low