

Risk Assessment Guidance - Hazardous Substances

	Category 1 Very Low	Category 2 Low	Category 3 Medium	Category 4 High	Category 5 Very High
Toxicity/ Health examples	Not classified as a hazardous or dangerous material	500g Harmful & below WEL where applicable.	1-50g Toxic & below WEL (EH40)	<1g Highly Toxic / fatal & below WEL (EH40)	> stated volumes of hazard categories listed
Fire/ Explosion examples		500 ml flammable liquid	100 ml highly flammable liquids	50 ml extremely flammable liquid	> stated volumes of hazard categories listed
	No 'H' statements; or very small quantities; or very low concentrations. In a form that will not enter the body.	Formulated Products / Kits Hazard warning labelling indicating Harmful, Irritant Flammable, Fire, Projection Hazard etc.	Well known and understood chemicals / chemical reactions Hazard warning labelling indicates Toxic Explosive or fire, blast or projection hazard	Novel or high risk compounds with identifiable hazards. E.g. 'fatal', Extremely flammable gases and liquids; mass or severe explosion hazard	Do not proceed. E.g. Lethal in quantities to be handled. Unstable explosives; major fire potential
Mixing of two or more chemicals can significantly change the hazard and risk level from the original materials. Assessment to take into account intermediate and by-products. Ensure assessment covers this where appropriate					
Control Level	Basic good practice following Lab / Workshop Rules. No significant risk. Basic user instructions on container are sufficient. If unsure, seek advice.	Risk easily controlled by following manufacturer's info / industry best practice guidance, or standard work procedure / SOP. Simple controls. A good standard of general ventilation.	Quantities or type of use creates well-understood risks that can be readily controlled. Standard risk assessments. (Combined COSHH/DSEAR) Standard controls. Partial enclosure, e.g. LEV, capture and receiving hoods, fume cupboards	Risk requires a detailed Advanced COSHH / DSEAR assessment Reduce risk by substituting for less hazardous substance where possible. Seek advice on required levels of competence. Full enclosure e.g. glove box. Special handling techniques	Risk level unknown or potential for catastrophic consequences Seek authorisation / licence. Do not proceed until risk is identified and reduced to at least cat 4.
Suggested Assessment Type (if in doubt, complete the assessment type for the higher category)	Incorporate into Task/Activity Risk Assessment		Standard COSHH Assessment / DSEAR (where appropriate)	Advanced COSHH Assessment / DSEAR (where appropriate)	Stop and conduct more research. Reduce volumes / substitute for less hazardous materials. Consult with Health and Safety Services