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| C:\Users\susanb\AppData\Local\Microsoft\Windows\Temporary Internet FilesContent.Word\PRIMARY_A_Vertical_Housed_RGB.PNG | Health & Safetyguide to chemical risk hierarchy of control |

| This guide provides help in selecting appropriate risk controls when undertaking activities that include the use of chemicals. Use this guide in conjunction with the [Chemical Risk Assessment Form](https://safety.unimelb.edu.au/__data/assets/word_doc/0006/4592166/Chemical-risk-assessment-form-1.docx) and the [*Health & Safety: Chemical requirements*](https://safety.unimelb.edu.au/__data/assets/word_doc/0011/4592153/health-and-safety-chemical-requirements.docx)*.* For more information, refer to <https://safety.unimelb.edu.au/safety-topics/management-systems/implement> or contact your local [Health and Safety Business Partner](https://safety.unimelb.edu.au/health-and-safety-contacts). |
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| HIERARCHY OF CONTROL | EXPLANATION |
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| Elimination:Eliminate the use of the chemical | Use a physical process instead of a chemical process. Examples include:use ultrasound to clean equipment instead of a process using cleaning chemicalsuse clips/bolts or nails instead of adhesive. |
| Substitution: Use a safer chemical or a safer form of the chemical | Examples include:Safer chemicaluse detergent instead of chlorinated solvent for cleaninguse water-based chemicals instead of solvent-baseduse chemicals where compatibleSafer form or processpaint with a brush instead of sprayingpurchase a substance in a safer form  |
| Isolation: Separate people or property from the chemical by distance or barriers | Examples include:use closed systemsisolate the process to one room with restricted access or use appropriate barriers/screens to separate substancesdistance workers from substances/processes through the use of remote controlsdistance property, incompatible chemicals and ignition sources (e.g. flames, sparks) from goods |
| Engineering: Adopt physical controls (such as plant/equipment) that eliminate or reduce the generation of chemicals; suppress or contain chemicals; or limit the area of contamination in the event of spills and leaks. | Examples include:use fully or partially enclosed ventilation boothsfully or partially enclose the process with exhaust extractionuse local exhaust or natural ventilation systems (e.g. air ducts, open doors/windows)design buildings that are: compatible with the intended goods; made of non-combustible construction as far as is practicable; designed to reduce contaminationuse bunding to contain spillageinstall drains, tanks or sumps to cope with spilled material install automatic fire protection and chemical suppression systems |
| Administration: Incorporate safe work practices including good housekeeping. | Examples include:reduce the amount of property or the number of employees exposedreduce the duration and/or frequency of exposure e.g. through job rotationreduce the amount of goods/products stored and usedensure safe interim storage of wastes/products (e.g. labeled properly in suitable containers stored away from people, the environment, incompatible chemicals, ignition sources etc)vacuum or wet sweep to suppress dust being generatedcover containers and make sure lids are attachedclean up spills immediately (includes provision of suitable aids, equipment and isolate floor and storm water drains)ensure no eating, drinking or smoking in areas where substances are usedprovide suitable washing facilitiesprovide First Aid facilitiesinstruct employees on how to use substances safely |
| Personal Protective Equipment (PPE): Provide protective clothing and equipment for employees, supervisors and visitors. NB:  | PPE must be compatible with chemical(s) being used/stored and where applicable meet the relevant Australian Standard. Example include:overalls, aprons, gowns, chemical resistant suitsfootwear (enclosed shoes, safety boots)gloveschemical resistant glasses (safety glasses)face shields/masks, respirators . full/partialhead protection |