

## Example: Record of risk assessment for a hazardous substance

Refer to the *Guidance Note for the Assessment of Health Risks Arising from the use of Hazardous Substances in the Workplace* [NOHSC: 3017 (1994)], (available at [www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au)).

<b>Hazardous substance:</b> <span style="color: blue;">Hydrochloric acid, concentrated</span>		How used: <span style="color: blue;">Used in laboratory work</span>													
Location (used): <span style="color: blue;">Fume-hood in laboratory</span>		Quantities used (eg per shift): <span style="color: blue;">200-500 mL/shift</span>													
Frequency and duration of use: <span style="color: blue;">Used daily for 1-2 hours</span>		Used by (occupation): <span style="color: blue;">Lab technicians</span>													
<b>Nature of hazard</b> <input checked="" type="checkbox"/> : <input type="checkbox"/> Toxic <input type="checkbox"/> Harmful <input checked="" type="checkbox"/> Corrosive <input type="checkbox"/> Irritant <input type="checkbox"/> Sensitiser (may cause allergic- type skin or respiratory reaction) <input type="checkbox"/> Carcinogenic (may cause cancer) <input type="checkbox"/> Mutagenic (may cause mutations/ genetic change) <input type="checkbox"/> Teratogenic (may cause birth defects) <input type="checkbox"/> Other hazard/s (specify):	<b>Possible route/s of exposure</b> <input checked="" type="checkbox"/> : <input checked="" type="checkbox"/> Eyes <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Ingestion/ swallowing <input type="checkbox"/> Injection	<b>Adequacy of current controls</b> Current controls are inadequate if not present when MSDS requires them or if not functioning well. A <input checked="" type="checkbox"/> under OK means action is needed. Consider each control – does the MSDS recommend it, and is it present?	Present <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> OK <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Monitoring</th> <th style="width: 15%;">Needed <input checked="" type="checkbox"/><input checked="" type="checkbox"/></th> <th style="width: 15%;">Present <input checked="" type="checkbox"/><input checked="" type="checkbox"/></th> <th style="width: 15%;">Results OK <input checked="" type="checkbox"/><input checked="" type="checkbox"/></th> </tr> </thead> <tbody> <tr> <td>Health surveillance program</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Air monitoring program</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>	Monitoring	Needed <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Present <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Results OK <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Health surveillance program	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Air monitoring program	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Isolation <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Local extraction ventilation <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> General ventilation <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Natural ventilation <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Other engineering controls <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Safe work methods (eg pumping instead of pouring) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Reduce quantity and/or concentration <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Information (at least MSDS and label) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Ongoing training (hazards, safe use, PPE, health surveillance if applicable) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Personal protective equipment (list): <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <span style="color: blue;">Safety glasses, lab coat, PVC gloves, closed shoes.</span> <b>Other measures</b> First aid supplies/equipment (eg safety shower) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> First aid training <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Evacuation plan, emergency plan, and required emergency equipment <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Other controls (specify): <input type="checkbox"/> <input type="checkbox"/>		
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<b>Conclusion:</b> <input checked="" type="checkbox"/> <input type="checkbox"/> Risks not significant now and not likely to increase <input type="checkbox"/> Risks significant but effectively controlled at the moment <input checked="" type="checkbox"/> Risks significant and not adequately controlled at the moment <input type="checkbox"/> Uncertain about risks; more detailed assessment required															
<b>Action required to reduce risks:</b> (list changes needed, by when and by whom, attach further pages if needed) <input checked="" type="checkbox"/> Yes (specify): <span style="color: blue;">Label in poor condition, to be replaced – J. Bloggs to action by 06/03/12.</span> Date completed: <span style="color: blue;">No eye wash station, eye wash to be installed – J. Bloggs to action by 30/04/12. Prior to installation of fixed eye wash, eye wash bottle to be provided as interim measure – J. Bloggs to action by 03/03/09.</span> Signature: <input type="checkbox"/> No															
Comments:															
Assessment carried out by: <span style="color: blue;">A.N. Assessor</span>		Signature: <span style="color: blue;">A.N. Assessor</span>	Date: <span style="color: blue;">27/02/12</span>												
Assessment approved by (person in charge): <span style="color: blue;">A. Boss</span>		Signature: <span style="color: blue;">A. Boss</span>	Date: <span style="color: blue;">27/02/12</span>												
Next assessment due: <span style="color: blue;">27/02/17 or earlier if conditions change</span>															

## Risk Rating

Likelihood* of injury or harm to health	Consequences of injuries or harm to health			
	Insignificant (eg no first aid required)	Moderate (eg first aid or medical treatment)	Major (eg extensive or permanent injuries)	Catastrophic (eg fatality or many people injured)
Very likely	High	Extreme	Extreme	Extreme
Likely	Moderate	High	Extreme	Extreme
Moderate	Low	High	Extreme	Extreme
Unlikely	Low	Moderate	High	Extreme
Highly unlikely	Low	Moderate	High	High

*Guide to Likelihood	
Very likely	Expected to occur
Likely	Will probably occur
Moderate	Will occur at some time
Unlikely	Could occur at some time
Highly unlikely	May occur in exceptional circumstances

Guide to actions	
Extreme	Stop the work until risk is reduced
High	Reduce risk urgently
Moderate	Reduce risk as a priority
Low	Reduce risk when/if convenient

### Process overview

1. Determine who will do the assessment and who will need to have input or be consulted.
2. Identify all hazardous substances used or generated (stock lists, registers, walk-through inspection, consideration of process tasks and associated cleaning/maintenance/testing). Refer to MSDS to determine if substances are hazardous.
3. Review information about all hazardous substances identified (MSDS, labels etc). Where substances are similar and used in a similar way, consider whether they may be assessed together (eg three brands of oil based paint with very similar MSDS information).
4. Inspect work area and talk to staff to determine how the hazardous substances are really being used. In some cases technical assistance may be needed to establish exposure levels (eg air monitoring, or checking if ventilation systems work as they should).
5. Compare how the substances are actually being used to the recommendations on the MSDS and determine whether any differences are presenting a risk to safety or health. Consider all risk factors; and refer to risk rating chart above.
6. Identify any changes needed and determine how these will be implemented. Ensure the appropriate manager/s are responsible for implementation.
7. Document assessment and determine when assessment should be repeated (when things change significantly, if problems are reported, or at least every 5 years).

### Further assistance if required

- Refer to the *Guidance Note for the Assessment of Health Risks Arising from the use of Hazardous Substances in the Workplace [NOHSC: 3017 (1994)]*, (available at [www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au) (search "assessment of health risks"))
- WorkSafe: Telephone 1300 307 877.
- Consult an occupational hygienist. The Australian Institute of Occupational Hygienists ([www.aioh.org.au](http://www.aioh.org.au)) or the Yellow Pages may provide listings.