

# How to Complete a Chemical Risk Assessment (RA) Form

It is first necessary to look at the Safety Data Sheet (SDS) for any chemical proposed to be purchased. If the chemical has any Hazard Statements relating to the properties of the chemical then a Risk Assessment (RA) needs to be completed before the chemical can be purchased and any work with the chemical commence. Completing the RA will ascertain which Risk Category (Category 3, 4 or 5) the chemical belongs to.

**Safety Data Sheet (SDS):** Obtained from the original manufacturer of the chemical, the distributor or else the Chemwatch SDS database.

**Risk Assessment Form (RA):** Obtained from the SEBE Health and Wellbeing website <https://deakin365.sharepoint.com/sites/sebe/hsw/SitePages/WSA,%20RAs%20%26%20SOPs.aspx> or from a member of the Technical Staff. This site contains a Risk Assessment library where you may find the RA you need.

## SECTION 1 – General Information

- Enter the chemical name as it is stated on the SDS.
- Enter SOLID, LIQ or GAS to indicate if the chemical is a Solid, Liquid or Gas.
- Enter the concentration of the chemical if it is liquid (either % or M)
- Enter the name of the person completing the RA form.
- Enter the 'user group' who will use the chemical. E.g. CCMB, CIE, Blue Carbon, Teaching, etc.
- Enter the date the form is completed.
- The Risk Category will auto-fill once the Hazard Statements are entered (Section 3)

## SECTION 2 – SDS Information

REFER TO SECTION 2 (HAZARDS IDENTIFICATION), SECTION 3 (COMPOSITION), SECTION 14 (TRANSPORT INFORMATION) AND SECTION 15 (REGULATORY INFORMATION) OF THE SDS TO COMPLETE THIS SECTION.

- Enter the Signal word i.e., DANGER or WARNING.
- Enter the Revision Date of the SDS (be mindful not to enter the print date).
- Identify which pictograms are used in the SDS and tick the corresponding images.
- Referring to Section 14, enter the Dangerous Goods Class and Subsidiary Risk (if they are relevant).
- Enter the Packaging Group Number (if the chemical is a Dangerous Good).
- Referring to Section 15, enter the Poisons Schedule Number (if the chemical is a 4, 7, 8 or 9 poison).
- Enter the UN number if the chemical is a Dangerous Good.
- Enter the CAS number. If the chemical is a mixture; there may be a second CAS number to enter.

## SECTION 3 – Risk Category Assessment of Parent or Concentrated Chemical

REFER TO SECTION 2 (HAZARDS IDENTIFICATION) OF THE SDS TO COMPLETE THIS SECTION.

- Enter all Hazard Statement numbers in the left column (do not include the H). As the numbers are entered, the columns with hazard description and category risk number will auto-fill.
- If no hazard statement applies, then enter the word 'None'

## SECTION 4 - Preventative Control Measures to be used to Handle Chemicals

REFER TO SECTION 2 (HAZARDS IDENTIFICATION) OF THE SDS TO COMPLETE THIS SECTION. USE THE PRECAUTIONARY STATEMENTS AS A GUIDE ONLY TO COMPLETE THIS SECTION.

- Enter the safety controls the user will use to try to minimise risk for each hazard statement number.

***Important note:*** Since we are Risk Assessing it is important to consider the quantity of chemical being used and therefore the realistic hazard the chemical might pose to the user. Often the risk to the user might be considerably less than the inferred risk from the Safety Data Sheet.

From this point there are two scenarios.

**Scenario 1:** The Risk Rating of the chemical being assessed is listed in Section 1 as '3'

**Scenario 2:** The Risk Rating of the chemical being assessed is listed in Section 1 as '4' or '5'

If **Scenario 1** is valid (Risk Category 3) then Complete Section 4 by adding statements about how to address individual hazards as shown in the Table below. On a vacant line under the statements write the words **“Standard laboratory operating procedures to be followed”**. The premise here is that the risks associated with handling this chemical fall within the guidelines of our Standard Operating Procedures. The Risk Assessment is now complete and there is no need to complete further Sections of the form.

### Section 4 - Preventative Control Measures to be Used to Handle Chemical

Hazard Statement Number	Describe preventative (control) measures to be used to address hazards Consult Precautionary Statements on SDS as a guideline to comments
e.g. 301	Wash hands thoroughly after handling
302	Wash hands thoroughly after handling
332	Avoid inhaling vapours.
319	Wear safety glasses.
-	Standard laboratory operating procedures to be followed.
-	

If **Scenario 2** is valid (Risk Category 4 or 5) then the Risk Assessment needs to be filled out in FULL (Sections 5 – 11).

## SECTION 5 – Emergency Response Procedures for Accident with the Concentrated Chemical

REFER TO SECTION 6 (ACCIDENTAL RELEASE MEASURES), SECTION 4 (FIRST AID MEASURES) AND SECTION 2 (HAZARDS IDENTIFICATION) OF THE SDS TO COMPLETE THIS SECTION. USE THE INFORMATION PROVIDED HERE AS A GUIDE.

- Determine the best and safest way to respond to both a large spill and a smaller manageable spill. Be sure to take into consideration your specific work area and any complexities it may include. For example; in a teaching laboratory, the presence of many students must be considered in the clean-up process. Does your laboratory have a power isolation switch etc.
- Referring to the precautionary statements in Section 2 of the SDS and the First Aid measures in Section 4, determine the best first aid/medical response and enter a description for each exposure method.

*Note: Do not refer to any breathing apparatus, spark arrested vacuum or other equipment that you do not have access to in your laboratory. Please consider the individual chemical hazards when filling in this section – if the chemical reacts violently with water, please do not list that you'll clean up a spill with a wet cloth.*

## SECTION 6 – Storage Requirements for Stock of Concentrated Chemical

- Select the applicable storage requirement according to the Dangerous Good (DG) classification previously entered in Section 2 of the RA. If not a DG then there are no specific requirements.
- Enter any further requirements within the 'Other' description box.

*Note: The **Special Management Requirements** section will be automatically filled according to the information entered in Section 2 of the RA. If YES is auto-filled for any of the management requirements then these will need to be addressed under **Safe Working Practices**.*

## SECTION 7 – Waste Disposal Methods

REFER TO SECTION 13 (DISPOSAL CONSIDERATIONS) OF THE SDS TO COMPLETE THIS SECTION.

- In each column select the applicable waste disposal method from the four options in the drop down menu. Each column must be completed. Comments may also be added if appropriate.

## SECTION 8 – Task to Be Performed

THIS PART OF THE RISK ASSESSMENT REFERS TO HOW YOU WILL BE USING THE CHEMICAL AND ADDRESSES THE LEGAL REQUIREMENT OF THE STANDARD OPERATING PROCEDURE.

- Provide a very brief description of the task that will be performed with this chemical. Make the description non-specific such as *decanting to make a dilution* or *weighing to make a solution*.
- Remember always that the greatest hazard with any chemical is the initial handling of the parent chemical which is either weighed or diluted or directly combined with a second chemical.

## SECTION 9 – Work Practice Instructions

- Include the safety measures to be used in the basic process e.g. safety glasses, avoiding ignition sources, avoiding inhalation of fumes etc. Describe the process to be followed using these parameters.
- If the chemical is a Schedule 4 or 7 poison, a peroxide forming chemical or a chemical of security concern, then include comments about their management in this section

## SECTION 10 – Risk Category Assessment if Chemical is to be Diluted or a Solution made from a Solid

- Enter YES or NO. If YES, complete the table referring to the GHS Dilutions Tables in worksheet 2 of the RA file. It is advisable to consult either the Laboratory Manager or a Senior Technical Staff member to assist with completing this section.

## SECTION 11 – Hierarchy of Controls Considered

*Note: ALL Controls MUST be considered and therefore selected. The order of hierarchy (top to bottom) is such that the safest options appear first (i.e. to eliminate [or not use] the hazard is the safest option. Where possible ensure that these hierarchies are seriously considered before starting work.*

## SECTION 12 – Risk Rating After Procedure

THIS IS AN AUTOMATICALLY FILLED BOX BASED ON THE INFORMATION PROVIDED THROUGHOUT THE RA.

*The Completed Risk Assessment Form needs to be approved by either the Laboratory Manager or his nominee.*