



# RiskAssess

[www.riskassess.com.au](http://www.riskassess.com.au)

## Risk Assessment Tool for Science Laboratories

including lab scheduling and prac ordering

Schools are legally required to conduct risk assessments prior to carrying out science experiments. More than 1300 schools in Australia, New Zealand and Canada subscribe to RiskAssess and have conducted over 1,200,000 risk assessments.

RiskAssess is a web-based system that makes performing risk assessments quick and easy. Using RiskAssess, schools can meet their legal obligations and make their science laboratories safer.

RiskAssess is customised for use by school teachers and science technicians and includes:

- an electronic template for risk assessments, following the Australian ISO Standard on Risk Management
- safety information for chemicals, equipment and living organisms
- GHS data on over 1000 chemicals and their solutions
- hot-links to SDSs, documents, diagrams, websites . . .
- recording of inherent risk level and control measures
- easy sharing of experiment templates for customisation and review
- laboratory scheduling system, including prac ordering
- access for unlimited numbers of simultaneous users
- use on computers, iPads, tablets and smart phones
- storage of risk assessments for legal purposes
- online help and learning resources
- easy-to-read user manual.

The cost of a year's subscription to RiskAssess is \$200+GST per school campus. A subscription lasts 365 days from the date that payment is received and includes all upgrades during that period.

You can subscribe online at [www.riskassess.com.au](http://www.riskassess.com.au) or email your school name to [info@riskassess.com.au](mailto:info@riskassess.com.au) to arrange a free 2-week trial.

If you have further questions, email Dr Phillip Crisp on [phillip@ecosolve.com.au](mailto:phillip@ecosolve.com.au).

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**RISKASSESS**  
Risk Assessments For Schools

**Risk Assessment and Practical Order**

School: EcoSolve High School  
Author: Phillip Crisp  
Experiment name: Making Hydrogen  
Text reference: P. Stannard and K. Williamson "Science World 7th, 2nd ed., Macmillan, Melbourne, 2003, p.52. Cork also to be used in place of

**Classes for Which Experiment is Required**  
Teacher: Phillip Crisp  
Year Group: 10  
Chemical User Codes: Teacher Lab Tech  
[Explanation of codes](#)

**Scheduling**  
For example:  
611 2 1/7/08  
614 4 2/4/08

**Equipment / chemicals to be prepared by lab technician**  
For example:  
10 groups of:  
2 x Magnesium ribbon, 2cm long  
1 x 1M HCl, bottle, 50mL

**Equipment, Chemicals & Living Organisms for Risk Assessment**  
For each section below, enter one or more words to search on and then click 'Search & Add'. If a match is found, it will be added to your risk assessment. For example, in the 'Chemicals Used' section, enter 'iron oxide', click the button, and it will be added to your risk assessment. You can also search by chemical formula (eg, 'Fe2O3'), and incomplete words (eg, 'iron' will find iron oxide).

**Equipment**  
cork [Remove](#)  
matches, box [Remove](#)  
taper [Remove](#)  
test tube, small (~75 x 8 mm), borosilicate ("pyrex") [Remove](#)  
[Search & Add](#)

**Chemicals Used**  
magnesium [Remove](#)  
hydrochloric acid [Search & Add](#)

**Chemicals Produced**  
hydrogen gas, generated during experiment [Remove](#)  
[Search & Add](#)

**Living Organisms**  
[Search & Add](#)

**Others:**  
Include hazards & standard handling procedure  
[Generate Risk Assessment](#)

By running 'Generate Risk Assessment' you accept the [Conditions of Use](#) for the RiskAssess website.

RiskAssess helps high-school teachers and lab technicians perform risk assessments which meet Australian standards.  
Home | About RiskAssess | [Conditions of Use](#) | [Help](#) | [Contact Us](#)  
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## EcoSolve High School Home Page

[Settings](#) [Log out](#)

### Blank Risk Assessment

[Start Blank Risk Assessment >](#)

Alternatively, to copy an existing risk assessment, find it with the search box on the right.

### Laboratory Scheduling

View the laboratory schedule for:

[Today](#) | [Tomorrow](#) | [1 Week](#) | [4 Weeks](#) | [Any Dates](#)

### Recent Risk Assessments

[Making hydrogen and carbon dioxide gases](#) for Jeffrey Black (seconds ago)

[Making hydro](#) ago)

### Risk Assessment Search

Fill in one box only, unless you want to narrow the search.

Author / Teacher:

Year Group:

Experiment name:

Procedure / Reference:

Date:

In the last 18 months

Chemicals / Equipment / Living things used:

For example: burette, sodium hydroxide

[Search >](#)

Or list: [All](#) | [Deleted](#)

### Equipment to be used

#### bunsen burner

##### Potential hazards

Roaring flame is very hot and can cause severe burns. Rapid passage of hand through fully luminous flame usually does not result in a burn. Roaring bunsen burner may "burn back" at low gas flow, with flame emerging from air holes in base; this makes the base of the burner hot to touch and liable to cause burns. Gas from gas tap or from end of rubber tube burns with large luminous flame, likely

##### Standard handling procedures

Inspect and clean the jet and base of bunsen burners regularly. Inspect and replace tube whenever any sign of wear or damage is noticed. Use only hoses of the correct size to ensure a comfortable fit on both bunsen burner and gas tap.

## Laboratory Schedule

[Home](#) [Log out](#)

Show schedule for:

Four Weeks

[Print](#)

[Download for Excel \(CSV\)](#)

### Friday, 25 September 2015

Period	Room	Year	Teacher	Experiment & Procedure	Prepared?
1	1	12 Senior Science	Joanne White	<a href="#">Making hydrogen gas</a> S&B p112 Lodged: 22 Sep 2015, 11:23am	<input checked="" type="checkbox"/>

[Add Prep Note](#)

### Wednesday, 30 September 2015

Period Room Year

### Certification by Science Technician

I have assessed the risks associated with preparing the equipment, chemicals and living organisms for this experiment and subsequently cleaning up after the experiment and disposing of wastes, on the basis of likelihood and consequences using the [School's risk matrix](#), according to International Organization for Standardization Standard ISO 31000:2009 and the Risk Management Guidelines, HB 436:2013.

I consider the [inherent level of risk](#) (risk level without control measures) to be:

☐ Low risk ☒ **Medium risk** ☐ High risk ☐ Extreme risk

#### Control measures:

Dilute the concentrated acid in the fume cupboard.  
Additional measures: safety glasses, gloves, lab coat, fume cupboard

[Update Measures](#)

With the specified control measures in place, I have found that all the risks are "low risk". Risks will therefore be managed by [routine procedures](#) in the laboratory, in combination with the specified control measures.

Name:

Signature:

Date:

[Sign Electronically](#)

### sodium

Class: 4.3

PG: I

[Tch](#)

Users: 1,2,5

UN: 1428

CAS: 7440-23-5

[GHS data:](#)

**DANGER**



In contact with water releases flammable gases which may ignite spontaneously  
Causes severe skin burns and eye damage

#### Potential hazards

EXTREMELY CORROSIVE TO SKIN AND EYES. Reacts violently with water to form hydrogen gas which, on mixing with air, may explode. Reacts with water to form sodium hydroxide, which is highly corrosive to the skin and eyes. Reacts explosively with acids, polyhalogenated hydrocarbons (e.g. chloroform), bromine, iodine and sulfur. Combustion reactions with oxygen and chlorine gases are violent and should be attempted only with minute (50 mg) quantities of sodium.

#### Standard handling procedures

For the sodium fusion test, use only a small amount of sodium (0.2 g) and unknown sample (0.1 g); carry out the reaction in a fume cupboard behind a blast shield. Reaction of sodium with water should be carried out by adding a small (1 g maximum; size of small pea) lump of sodium to a beaker filled to the top with water to minimise space where hydrogen/air mixture can accumulate. Perform all reactions involving sodium in a fume cupboard. Do not try to hold sodium in place on the surface of the water in order to collect the hydrogen; the gas is likely to ignite or explode. Placing sodium metal on wet filter paper usually results in ignition of the hydrogen gas.