

# STANDARD OPERATING PROCEDURE

## FUME CUPBOARDS

(INCLUDES EXTERNALLY EXTRACTED AND AIR RECIRCULATION TYPES)

Ref: AS/NZS 2243 Safety in Laboratories: Part 8 - FUME CUPBOARDS and Part 9 - RECIRCULATING FUME CUPBOARDS

**DO NOT USE UNLESS YOU ARE TRAINED, COMPETENT & HAVE PERMISSION**



### POTENTIAL HAZARDS

Breathing contaminants due to inefficient fume extraction	Failure of sash assisted lifting mechanism
Fire / explosion from handling of flammable substances	Can be part of the laboratory air extraction system
Exothermic reaction of incompatible substances	Operator exposure to contamination from previous use

### PRE-OPERATIONAL SAFETY CHECK

**NOT USE DEFECTIVE OR FAULTY EQUIPMENT**

1	Check that the fume cupboard inspection label is in date and that the extraction system is operating correctly.
2	Ensure the fume cupboard is clean and free of contamination from previous use.
3	Close any open windows or doors which may cause draughts across the fume cupboard face.
4	Ensure that a suitable fire extinguisher is easily accessible (ref. AS/NZS 2243 Safety in Laboratories: Part 8)
5	Ensure that there is a properly documented risk assessment of the work proposed.
6	Ensure all containers which will be used in the fume cupboard are labelled.
7	Unattended reaction vessels must be labelled with name and contact details of the user.
8	For scrubbed fume cupboard work, ensure that the scrubber pump works and the tank is full of clean water.

### OPERATIONAL SAFETY

1	Place apparatus and materials to be used centrally and towards the rear of the fume cupboard.
2	Work with the sash lowered to protect the operator.
3	Clean up spillages or aggressive substances immediately.
4	Control activities to avoid overheating inside the fume cupboard.
5	Follow local procedures for work involving the use of hydrofluoric, perchloric acid and flammable materials.

### POST-OPERATIONAL SAFETY

1	Remove all chemicals and equipment that is no longer needed.
2	Leave the fume cupboard in a clean condition suitable for next use with the sash lowered.
3	Do not turn off fume cupboard extraction system unless hot plates or heating is OFF.
4	Fume cupboard wash-downs must be used following use of hydrofluoric acid or perchloric acid.
5	Water scrubber units to be emptied and refilled after 40 hours of use or every 3 months, whichever is sooner.

### FORBIDDEN

**THIS EQUIPMENT MUST ONLY BE USED FOR THE PURPOSE FOR WHICH IT IS INTENDED**

1	Take care with tissues or paper towels as they can be sucked into the extract system causing blockages.
2	Do not leave heaters or reactive processes unattended.
3	Do not discard unsuitable substances into the fume cupboard drain. If in doubt please ask the Lab Supervisor
4	Fume cupboards should not be used for ongoing chemical storage.

This Standard Operating Procedure does not necessarily cover all possible hazards associated with the equipment. It should be used in conjunction with other references. It is designed as an adjunct to training and to act as a reminder to trained, competent operators.

ASSESSMENT DATE: / /	Verified by Supervisor:	(name & signature)
IF USED AS RECORD OF COMPETENCY	Competent operator:	(name & signature)