

# ASSIST INFORMATION SHEET:

## Footwear in school science laboratories

*It is important that schools have a set of 'Laboratory rules' established for the school science department, which apply to all people entering the science laboratory including students, teachers and technicians. These rules should include required Personal Protective Equipment (PPE) that includes appropriate footwear.*

Footwear that provides good protection for students and staff in school science laboratories is recommended. This is closed in shoes with leather uppers that cover the top of the foot and sturdy non-slip soles. Sandals, court shoes, open toe shoes, thongs, mesh, open weave or canvas shoes do not provide sufficient protection from hot or corrosive liquids or from broken glass.



A school science laboratory should develop safety management systems by identifying the hazards and assessing and managing the risks in the same way as in other laboratories such as in universities or industry. The level of protection required is dependent upon the nature of the activity and subject to a risk assessment.

There are many hazards in the laboratory to be considered when determining appropriate footwear, for example: slippery floors, chemical spills or falling objects. The aim of protective footwear is to protect the wearer from injuries incurred such as resulting from slipping on slippery floors; impact from falling objects or contamination from chemical spills.

It is suggested that the 'Laboratory rules' established for the school are displayed on each laboratory door, which includes the requirements for appropriate footwear. Some schools also display a poster of examples of acceptable and unacceptable laboratory footwear, such as the one included on the front page of this information sheet.<sup>1</sup>

The following link also provides some good photographs of examples of appropriate and inappropriate laboratory footwear.

Electron Microscope Unit, Mark Wainwright Analytical Centre 'Lab footwear guide', UNSW website <http://srv.emunit.unsw.edu.au/pdfs/Lab%20footwear%20guide.pdf> (Accessed November 2014)

This information is based upon the following excerpts from AS/NZS 2243.1:2005 *Safety in laboratories Part 1: Planning and operational aspects*<sup>2</sup>:

### 3.1 LABORATORY SAFETY MANAGEMENT SYSTEMS

#### 3.1.1 General

To manage occupational health and safety in a laboratory, laboratory safety systems shall be implemented.

#### 3.1.3.5 Safety equipment

(b) Requirements for clothing, apparel (e.g. jewellery), hairstyles and footwear worn by laboratory personnel compatible with safe working practices shall be prepared and implemented.

### 4.1 REQUIREMENTS FOR SAFE CONDUCT

Safety in the laboratory depends upon personnel achieving a recognized standard of behaviour.

Personnel who have medical conditions that can affect their ability to work safely within the laboratory's procedures, or that can contribute to increasing the hazardous nature of the situation should report this to the appropriate person. The following requirements shall apply to all personnel who use or enter the laboratory:

(c) Ensure that personal clothing is suitable to laboratory conditions, e.g. non-slip, closed-in footwear. Do not wear open-toed shoes in the laboratory.

### 4.2 USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 4.2.1 General

Minimum requirements for PPE in a laboratory shall be laboratory clothing (see

Clause 4.2.2), protective eyewear and closed shoes unless lesser requirements can be justified by a risk assessment.

#### 4.2.6 Safety footwear

Where specific safety footwear is required for a particular hazard, it shall be selected in accordance with AS/NZS 2210.

<sup>1</sup> Source unknown

<sup>2</sup> These extracts are from AS/NZS 2243.2005 *Safety in laboratories Part 1: 'Planning and operational aspects'* reproduced with permission from SAI Global Ltd under Licence 1407-c117