Al-Faisal College Sydney, Australia

Chemical Safety in School Policy

This policy addresses issues in relation to:
Safe and Supportive Environment – Student Welfare 3.6.2

(See also Policies on Duty of Care, Risk Assessment and Repairs and Maintenance)

WORKING WITH CHEMICALS

Overview

Many of the chemicals we work with can be harmful to our health if we are exposed to them and/or pose a risk of injury on incident if not handled properly. Chemicals are used in schools for both educational and administrative purposes. The "Chemical Safety in School Policy", sets out procedures to ensure that chemicals are used in a safe manner and that the risks associated with the use of chemicals are controlled.

Scope

Al-Faisal College performance standards for working with chemicals are applicable to all staff and students who work with chemicals.

Performance Standards

- The procurement of chemicals:
  - Initial request by relevant department.
  - Review and approval by Science Coordinator(s).
  - Authority to procure by the Executive Principal.
- Up-to-date chemical register.
- Relevant safety data sheet (SDS) must be readily accessible to all staff and students working with chemicals.
- All chemical containers must be appropriately labelled.
- Risk assessments must be completed for all experiments involving chemicals, risk controls applied and relevant safe operating procedures established.
- Appropriate storage must be provided for chemicals.
- Access to chemicals must be restricted to science teachers only and to be used in science laboratories.
- Chemical waste must be disposed of via Chemsal/ Tox Free/ Solveco (licensed to collect chemical waste).
- Teachers and students who work with chemicals must be provided with sufficient training and supervision and must be prepared for emergencies.

Procurement of chemicals

Chemicals which are not available on site will be ordered by the Science Coordinator following a formal request by the teacher through the laboratory assistant.

Approval to purchase a chemical should only be provided if:

- The relevant SDS has been reviewed.
- It has been determined that no safer alternative is available.
- The volume of the chemical is appropriate to the expected short-term demand for use.
- Adequate storage facilities are available.
- Appropriate facilities and competent staff are available to safely carryout (or supervise) the work involving the chemical.

Chemical Register

The chemical register is important for the management of the chemicals used and stored by the school and it ensures that the chemicals used are identified and controlled in a manner to minimise the risk of adverse health effects to staff and students. It includes a list of chemicals, their classification, storage locations and typical volumes. The register also provides links to the SDS and risk assessments. All science teachers must have access to the chemical register.

Safety data sheet (SDS)

SDS is a document prepared by the manufacturer and provided to us by the supplier. It will state whether the chemical is classified as hazardous and/or a dangerous good and provide details about the physical and chemical properties of the substance and precautions for safe use. Manufacturers/suppliers are required to review and update SDS every 5 years.

Safety Data sheets must be readily available to all staff and students who may be exposed to that chemical. It is acceptable to keep printed SDS together with the chemical register or to store the SDS electronically.

Chemical labelling

All chemicals and chemical mixtures must be labelled to identify their contents and provide basic health and safety information.

In situations where a chemical is decanted from a manufacturer's container to another container, or used to make a dilute stock solution from other chemicals the following information must be included on the label:

- Chemical identifier (from SDS).
- Relevant hazard statement/s or pictogram/s (from SDS).
- Date that the substance was decanted or prepared.

Chemical risk assessment

Risk assessments must be completed for all tasks involving the use of chemicals. The risk assessment process includes the following steps:

- Reviewing the SDS for the substances involved to identify the nature and severity of potential health effects and/or the potential for dangerous reactions, fire, explosion etc.
- Considering the proposed work process including the work environment (e.g. space, ventilation), quantities of the substances used, the practical experience of the person carrying out the work and the number of people affected by the work.
- Identifying the possible routes of exposure; the likelihood of exposure; the likelihood of a dangerous reaction, fire, explosion occurring during the work process; and the associated risk factors.
- Where necessary, implement additional risk controls to reduce the risk of exposure or incident.

Common risk controls for working with chemicals

- Eliminate or outsource hazardous tasks if the risks outweigh the potential benefits.
- Substitute the chemical with a less hazardous chemical. If this is not possible, investigate the use of the chemical in a less hazardous form (e.g. pellets instead of powder or gel instead of liquid) or use a safer process (e.g. purifying solvents by filtration rather than distillation).
- Isolate the hazard by using a closed system or separating workers by distance.
- Use engineering controls including fume cupboards and local exhaust ventilation.
- Minimise the volume or concentration of chemicals used.
- Establish safe work practices including restricted access, good housekeeping, preparation for emergencies and documented safe work procedures for frequently performed or high risk tasks.
- Provide appropriate training and supervision.
- Wear appropriate personal protective equipment.

Access to chemicals

Only staff and students with a legitimate need should have access to chemicals. Unauthorised access and activities must be prevented. Basic security controls include:

- Ensuring that the perimeters to all areas where chemicals are used or stored are secured (by key/tag) whenever unattended by staff.
- Keep the entrance doors to laboratories closed, even when in use.
- Display the School standard “Authorised entry only” signage at the entrances to facilities where chemicals are used.
- Keep a regular inventory of all chemicals and equipment.

Personal protective equipment and clothing

The minimum equipment and clothing standards for work with chemicals are:

- Enclosed/covered shoes made of non-absorbent material with a non-slip sole.
- Safety glasses or goggles.
- Disposable gloves which are chemically resistant.
- Laboratory coat or gown made of a fire retardant material.

Planning for emergencies

Each workgroup that uses chemicals must be prepared to:

- Quickly shut-down equipment or processes so that they can be safely left unattended in the event of a building evacuation.
- Provide appropriate first aid treatment in response to chemical exposures. Refer to the SDS for guidance.
- Respond to chemical spills and other dangerous events including fire.

CHEMICAL SAFETY

1. **Chemical register and SDS**

- All chemicals present in the science department are listed together with their classification.
- There are 3 copies of the chemical register in the high school – one in the science preparation room with the laboratory assistant, one in the high school office and one with the science coordinator.
- The chemical register is updated at least once each year.
- SDS documents are located on the front bench of the preparation room.

2. **Storage and classification**

- All chemicals are stored in the appropriate cabinets which are labelled – corrosive, oxidizing agents and flammable substances.
- Poisons are stored in a separate cabinet.
- Strong acids and alkalis are separated. Flammable solids and liquids are also separated.
- All storage cabinets are located in a separate lockable room at the science preparation room. The key for this room is kept with the laboratory technician.
- A list of chemicals is displayed on the door of each storage cabinet.
- All chemicals are classified according to name, supplier, quantity, class and risk level as set out in volume 2 of the Chemical Safety in Schools package (CSIS) and Globally Harmonized System (GHS).

3. **Labelling**

- All chemical containers are labelled as set out in the CSIS package.

4. **Risk assessments**

- Risk assessments are carried out for each experiment from year 7 to 12. These are located in a file in the science prep room with the laboratory assistant and with each science teacher.

5. **Use of chemicals**

- Chemicals can be obtained for use in science labs, by science teachers only.

6. Chemical Waste/Disposal

- Separate containers are provided for disposal of organic and inorganic waste. When full, these are collected by Chemsal/ Tox Free/ Solveco (licensed to collect chemical waste) or disposed of in accordance with local government and state regulations.
- Chemicals stored in the laboratory for over three years will be disposed of by the Cleaning contractor or in accordance with local government and state regulations.

7. Laboratory Safety

- Fire extinguishers are located in each laboratory and each preparation room and are regularly checked by licensed contractors.
- A fire blanket is present in each laboratory and each preparation room.
- Shower and eye-wash facilities are located at the front of each laboratory. These are tested on a weekly basis by the laboratory assistant.
- A sand bucket and chemical spill kit are present in each laboratory at the front of the room near the teacher's desk.
- A First-Aid kit is available in each laboratory in the teacher's cabinet and in each preparation room. These are maintained by the school nurse on a regular basis.
- An electrical safety switch is present at the front of each laboratory.
- The tap to the gas mains is located in the teacher's cabinet at the front of the laboratory and is always locked. The key for the cabinet is with the science teachers.
- All Science Department staff has been trained in the correct use and operation of the fume cupboards.
- All chemical experiments which require the use of volatile chemicals as per SDS sheets are carried out in the fume cupboard located in laboratory.
- At the completion of the practical experiment, all chemicals are removed from the laboratory and returned to the preparation rooms with a sign "completed" or "not completed".
- Students are provided with gloves and safety glasses when designated by the risk assessment.
- Students must wear closed shoes and uniform appropriately as per risk assessment for each practical.
- If a student suffers from an adverse reaction to any chemicals, safety procedures as per SDS

must be followed and the student must be sent to the School Administration Office for medical treatment together with a description of the chemical used. An incident report form must be compiled.

Chemicals for cleaning purposes

The school's contract cleaners store chemicals for cleaning purposes in securely locked storerooms located near the Schools Administration Office. These rooms are accessible only to office staff and the cleaning staff appointed by the school. These storerooms are not to be accessed by students at any time.

The canteen uses chemicals that are not flammable. They must be securely stored in a locked cupboard and used without exposing food, drinks or students to these chemicals.

Chemicals in the school's kitchen
Detergent is kept in the school's kitchen located in Buildings A and D for cleaning of eating utensils. The detergent is stored securely in the cupboards underneath the sink. These cupboards are not to be accessed by students at any time.

Pesticides
Pest control treatments on the school site will only be carried out by a licensed pest controller. These treatments will be performed outside the normal school hours.

Medications
All students' medications must be recorded at the school administration office in the medications "register" and accompanied with a medical certificate.

Revision History

Version	Policy Date	Review date of policy	Notes
1.0	January 2024	January 2025	*Amendments to this policy will be made based on updated legislative requirements or changes to school needs*
2.0	January 2025	January 2027	*Amendments to this policy will be made based on updated legislative requirements or changes to school needs*